THE BUILDER

A RECORD OF ARCHITECTURE AND CONSTRUCTION.

VOL. CXV.—No. 3959 DECEMBER 20, 1918.

THE PUBLIC APPRECIATION OF ARCHITECTURE.—I.

THE lack of public appreciation of architecture raises, we know, no new subject of discussion. The topic may not be as old as the hills, but it is certainly as old as the Institute of British Architects. Was not one of the objects of the foundation of that institution to promote a more general knowledge and appreciation of architecture than existed in 1837, the date of its foundation? We dare say that the Institute has done some good in its day—we have, in fact, no doubt on that point—but we have considerable doubt whether the art of architecture is more generally understood, more generally appreciated, to-day than it was in 1837. That may be an unwarrantably pessimistic view; we hope it is. Still, we think, it is generally acknowledged that architecture—the fine art of building—holds only a small place in public estimation, a much smaller place, for instance, than its sister fine arts of painting, sculpture and music. The qualities of architecture as a fine art are almost entirely lost sight of or misunderstood by the general public, and often by those who ought to know better, by men of some note in the world of art or learning, or both—even by those within the ranks of architecture itself. None of the other arts raises perhaps such thorny, such antagonistic issues. This may be largely due to the fact that the term architecture covers in its practice and creation a multitude of subsidiary professions, and possibly a wider range of knowledge, and of preliminary and progressive study than any of the other arts. These side issues—for, however essential they may be, they are, after all, only side issues—often make the part seem greater than the whole, the detail of greater importance than the general scheme. So much indeed depends upon subsidiary science in building that the large, plain view of its *raison d'être*, as fine art, becomes lost in a sort of haze, and is finally resolved after some indeterminate fashion. This large plain view, instead of being regarded as the essential factor in the production of architecture, is often regarded as something external, something superficial, as the mere gilding of the pill. We have heard discussions amongst architects themselves in which this essential aspect has been dealt with in almost contemptuous terms or merely introduced to show that the speaker has not forgotten its existence, or that his remarks did not mean to suggest that design in building should be overlooked! It is unfortunate, but it would be absurd not to realise that there are two camps in architecture. We are not referring to what may be called architectural politics, but to points of view. These differences are not fundamental, and will probably disappear when the many perplexing problems of comparatively recent growth in building have been solved, and so leave the architect free to follow the bent of his genius as an architect.

Differences between Architects.

It is a little ungracious to speak of differences between architects—which are not exceptional in any of the arts—while discussing the general lack of appreciation of architecture. But, before touching upon the general question, before briefly examining the grounds which perhaps account in a measure for the apathy of the public, and not only the public but public authorities, metropolitan and local, in regard to architecture, it is as well, probably, to take stock of the position of architects themselves in the matter. And in so doing we find some confusion of outlook no doubt largely due, as we have suggested, to the increasingly complex knowledge which modern materials and requirements involve in architectural practice. This state of things is, however, more or less a domestic matter, and scarcely reaches the ears of the larger public. It is true that since the foundation of the Institute there have been tentative attempts to guide the public by means of the reading of papers at Conduit Street on architectural subjects, by correspondence in the Press, by approach, when possible, to Government and local authorities when questions of architectural import have arisen. Since the Art Standing Committee of the Institute was formed a good deal has been done, for instance, to save from destruction buildings of architectural interest. Systems of examination in architecture have been established, and running throughout these various activities the main idea has been the general levelling up of architects, to raise the general standard of architectural practice, and incidentally by these means to attract a keener interest in, and promote a keener appreciation of, architecture as a fine art. But here again these activities have been largely of a domestic character; they have exercised great and useful influence in many important directions, but how far have they influenced the taste of the general public in its view of architecture? Is it more enlightened now than it was fifty years ago? Are finer buildings being built?

There can, of course, be no doubt as to the interest which architects take in the productions, both past and present, of their art. There is no lack of appreciation of architecture among architects. As a guiding influence, as a finger-post to the wider public, they must necessarily point the way. But the architect's persistent personal cultivation, his activity in the direction of self-reformation and in the other directions which we have indicated, are those steps alone sufficient? Have they helped the understanding of the public in the appreciation of the most abstract of all the arts? To a certain extent, no doubt. But the progress has been slow and the proselytes few.

Architects and Popularity.

Artists generally do not attach much importance to public opinion, although they are not at all indifferent to popularity. With many of them it is an ambition, a definite aim. To architects, however, popularity is unknown in the sense that it is known to the painter, musician or man of letters. It does not enter into his calculations in his view of a career. Realising, perhaps, that it is often the reward of the meretricious productions of other arts, which he regards rightly or wrongly as inferior, he is more than indifferent to popularity—he has a contempt for it. This disregard of public opinion, because it so rarely finds any sort of intelligent expression so far as architecture is concerned, is perhaps largely responsible for the neglect of any serious and sustained effort on the part of architects to create and mould public opinion. They prefer to confine their educational efforts to members of their own profession and their propaganda to Conduit-street. They regard public opinion as hopeless, and repay its indifference in its own coin. And what is the outcome? On the one hand, we have all the edifices which are necessary to the domestic, business and religious expression of a complex national life, in daily and hourly use by the millions which constitute a population; and on the other hand, we have the men who design and carry out these edifices, living in a different, or largely unapprehended, world of thought and taste. It is the embittered experience of many architects that the fine qualities of their buildings are often lost upon those who use them. It is not that the general public are unsympathetic; they are merely indifferent and uninstructed. They would no doubt appreciate if they knew what and how to appreciate. The anomalous situation is in a measure due a little to architects themselves; they have wandered, perhaps, too long in the secluded paths of historical research and got a little out of touch with the spirit of their time, and no other art is necessarily so dependent upon the time-spirit. We have only space left in the present article to postulate that contemporary appreciation is a vital necessity of all art, with the further provision that without the active co-operation of an intelligent public opinion the purpose of architecture as a living art cannot be realised.

NOTES.

The Presidency of the Royal Academy.

AFTER his long term of official life as President of the Royal Academy, Sir Edward Poynter has resigned his duties. He was born in Paris in 1836, the son of Ambrose Poynter, the architect, and he has been a Royal Academician for forty-two years. His able painting and design in relation to architectural work are well known, and some of us may feel inclined to question whether architecture has not lost something by his choice of a profession; his eminence as a painter we leave it to painters to appraise. The chief thought now uppermost in the minds of all artists will be whether a new president will be elected who, by a vigorous personality and a generous catholicity, may do something to make the Royal Academy a more vital influence in the furtherance of art, for this is wanted.

Peace Pageantry.

THE opportunity to redeem our character for the quality of our festive celebrations will shortly be here. Shall we be any better advised in our designs? For once in our times Trafalgar-square should be so dealt with as to form a beautiful and dignified centre to all our display. When an event of this kind is to happen we suppose the official control finds it difficult to discover where a really capable artistic direction is to be found. It is unreasonable to expect that the Office of Works itself can, at a moment's notice, provide the necessary imaginative design which may turn the occasion to fine account by the simple use of temporary decoration for the expression of a great symbolical display.

Allied Art.

WE wonder how far architects try to cast their nets to bring within the development of their art the many and varied instincts for artistic expression which are to be observed about the world. We often note a certain right instinct of decorative quality which might be of architectural use, but which is more or less wasted on very unimportant matters, or even warped and spoilt for lack of right encouragement and direction. We feel sure that much valuable effort is being lost to the profession for lack of better co-ordination and sympathy between architects and craftsmen of all sorts. Surely the Institute might arrange some means to bring about opportunities for periodical meeting and intercourse between architects and those who are able to give vitality and interest to their work.

But whether in calm or wrack-wreath,
whether by dark or day,
I heave them whole to the conger or
rip their plates away,
First of the scattered Legions,
under a shrieking sky,
Dipping between the rollers,
the English Flag goes by.
—KIPLING—
S.J.T.
THE SEASON'S GREETINGS
FROM SYDNEY TATCHELL
13, QUEEN ANNE'S GATE, S.W.

[These admirable designs for Christmas and New Year Cards are by Mr. Sydney Tatchell. We hope to give others in a forthcoming issue.]

Builders and their Chances.

A WELL-KNOWN builder told us the other day that ninety-five of his best workmen had gone into the Army during the years 1914 and 1915, and that he has now applied to have fifty of them released at once, so that he may proceed with a quantity of work ready to be put in hand. Apropos of this we read the following with interest from an evening contemporary:—

DEAR SIR,—Have you ever heard of that form of torture under which a thirsty man is chained up and invited to drink water that is placed just beyond his reach? Master builders are invited to report the number of men to whom they can give employment, whilst the Government grip on building operations and on building materials is maintained. Whilst the channels of trade are artificially dammed the prospects of employment for a demobilised army are veritably damned.

Bureaucracy.

IN the address which Sir Richard Cooper, Bart., M.P., recently delivered to the Society of Engineers on "Obstacles to Post-war Trade," were many timely observations of more than passing interest as the remarks of an employer of wide experience. What he said on the control of industry and the danger of bureaucracy is well worth quoting here.:—

"I am satisfied that some control of industry is essential to the welfare of the country for some little time after the termination of the war, especially in connection with the supply and allocation of raw materials and the regulation of our shipping, but, do you realise what a huge army of officials are to-day concerned with the control of British industries directly or indirectly, and do you realise that these men will not disappear like magic the moment peace is signed. I speak as one who has no small knowledge of the administration of British industry during the war by the State, and I view with the greatest anxiety the danger that bureaucracy will strangle British industry, and menace our power of capturing our full share of the overseas markets of the world when the critical moment arrives.

Electric Moving Advertisements.

THE approaching withdrawal of the lighting restrictions in London seems to provide an opportunity for a renewed protest against the abuse of electric lighting for the purposes of

1905
WITH MR & MRS SYDNEY TATCHELL'S
GOOD WISHES FOR CHRISTMAS &
THE NEW YEAR ♥ ♥ ♥ ♥ 1904
12. BRONDESBURY PARK MANSIONS · SALISBURY ROAD · N.W.

advertisement which disfigured the streets in the days before the war, and for the expression of the hope that their withdrawal will not lead to a return of the abuse. Whatever we may have suffered from these restrictions, at any rate they did blot out the irritating electric moving advertisement. For that at least we have to thank them; and if their withdrawal is to mean the recrudescence of such annoying vulgarities, we are almost tempted to say that we hope they never will be withdrawn—at any rate as far as these advertisements are concerned. Economy in light will be admirable for quite a long while, and perhaps before this period has elapsed the London County Council will take steps to deal with the worst of such offences against good taste, and particularly those that disgraced the river.

"The Termination of the War."

WE have now before us the "Termination of the Present War (Definition) Act, 1918." Many of the emergency Statutes are to continue in force for the duration of the present war and six months afterwards. The Act provides that the date to be treated as the termination of the war shall be declared by Order in Council, and the date so declared shall be, as nearly as may be, the date of the exchange or deposit of the treaty or treaties of peace, but notwithstanding this latter provision the declaration of the date shall be conclusive. It is to be noted that the Act also deals with private contracts, as it provides that the date declared shall apply, (except where the context otherwise requires) to "any provision in any contract, deed or other instrument referring expressly or impliedly and in whatever form of words to the present war or the present hostilities."

Control of Building Bricks.

WE are informed that, with a view to encouraging the industry to increase the output of bricks to meet the prospective demand, it is the intention of the Minister of Munitions, provided the present system of control continues, to maintain the present controlled maximum prices for a period of six months from January 1, 1919. We can only hope from this that there are good reasons for discontinuing the control altogether.

". . . SWIFT SHUTTLES OF AN EMPIRE'S LOOM THAT WEAVE US, MAIN TO MAIN . . . . "
— KIPLING —
THE SEASONS GREETINGS FROM SYDNEY TATCHELL
13. QUEEN ANNE'S GATE, S.W.
XMAS 1912

GENERAL NEWS.

Cranes Revocation Order.

The Minister of Munitions has issued an Order, dated December 6, revoking the Cranes Order, 1916, which provided that no person might sell or supply any steam, electric, hydraulic, or hand-driven lathe without a permit.

The Royal Architectural Institute of Canada.

The General Annual Assembly of the Royal Architectural Institute of Canada will be held at Montreal on January 17 and 18, 1919, at the same time as the Annual Convention of the Province of Quebec Association of Architects.

Resignation of Sir Edward Poynter.

At a general assembly of Academicians recently held it was announced that Sir Edward John Poynter, Bt., G.C.V.O., had resigned the presidentship of the Royal Academy, and that the resignation had been accepted with regret.

The Royal Sanitary Institute.

At an Examination in Sanitary Science as applied to Buildings and Public Works, held in London recently, five candidates presented themselves. The following two candidates were awarded certificates:—H. G. R. Hall, London; V. J. C. Watson, Chiswick. At an Examination for Inspectors of Nuisances, nine candidates presented themselves, and seven candidates were certified, as regards their sanitary knowledge, competent to discharge the duties.

Presentation to Dublin Architects.

Messrs. Kaye-Parry & Ross, architects and civil engineers, of 48, Kildare-street, Dublin, have received from the Marquis of Aberdeen and Temair a silver medal, as a souvenir of the Dublin "Town Planning Competition." The medal bears the following inscription:—"Presented by the Marquis of Aberdeen and Temair, K.T., to Messrs. Kaye-Parry & Ross, in commemoration of honourable mention of their designs for 'New Dublin' Civic Exhibition 1914."

Transport Industrial Council.

The Motor Transport Employers' Federation, with Major-General S. S. Long, C.B. (Lever Bros., Ltd.), as Chairman, and a Central Council representative of the various trade interests throughout the country, is interesting itself in the establishment of a joint industrial council for the transport industry of the Whitley report. A copy of the prospectus can be obtained from Captain F. G. Bristow, General Secretary, Motor Transport Employers' Federation, 83, Pall Mall, London, S.W. 1.

Relaxation of Priority for Government Work.

The Minister of Munitions gives notice that all uncompleted contracts for the Admiralty, War Office and Ministry of Munitions which have been placed in Classes A or B, including the various grades thereof P1, P2, P3, P4, P5, P6, under the Order as to Priority of March 8, 1917, need no longer be given the priority attaching to them under the Order, except in cases where the contractor is notified in writing or by official notice in the Press that a particular classification is still required to be given to any particular contract. Contractors must notify the ordering Departments of the Admiralty, War Office or Ministry of Munitions responsible for the contracts in question, of any modification of the original date of completion resulting from this relaxation of the Order as to Priority.

Building Trades and Shorter Hours.

A meeting of officials and representatives of the Edinburgh and Leith building trades, to which are affiliated plasterers, bricklayers, plumbers, joiners, slaters, labourers, electricians, painters, masons, tilelayers, glaziers, machinemen, heating engineers, and furnishing trades, was held in Edinburgh recently. The following resolution was agreed to:— That this representative meeting strongly recommends the building trades in this district to demand a forty-hours' working week, to be paid for at the rate of a fifty-hours' week, and that the working week be the first five working days of the week, with Saturday an idle day." It was also agreed that the finding of the trades should be forwarded to the Scottish National Wages Board (Operatives) for the purpose of making the question a national one, and that this district take immediate action.

Royal Institution.

Courses of lectures will be given before Easter by Professor Spenser Wilkinson on "Lessons of the War"; Professor MacGregor-Morris, on "Study of Electric Arcs and Their Applications"; Captain G. P. Thomson, on "The Development of Aeroplanes in the Great War" and "The Dynamics of Flying"; Professor Hele-Shaw, on "Clutches"; Professor Arthur Keith, on "British Ethnology: The People of Scotland"; Professor Norman Collie, on "Chemical Studies of Oriental Porcelain"; Dr. William Wilson, on "The Movements of the Sun, Earth and Moon" (illustrated by a new astronomical model); Mr. Charles Aitken (Director of National Gallery of British Art) on Rossetti, Whistler and Sargent"; Professor C. H. Lees, on "Fire Cracks and the Forces Producing Them"; Professor A. Findlay, on "Colloidal Matter and Its Properties"; Rev. Canon Hannay, on "The Irish Literary Renaissance"; and Professor Sir J. J. Thomson (Master of Trinity), on "Spectrum Analysis and Its Application to Atomic Structure."

Demobilisation.

The Controller-General of the Department of Demobilisation and Resettlement makes the following announcement:—

"One of the guiding principles in the Government's scheme for the demobilisation of the Forces is that the men demobilised first for return to civil life shall include those who have been ascertained to have definite employment awaiting them, and that among such men those shall be given highest priority who are pivotal men, and whose return will be of the greatest immediate value in creating employment for others, and in reconstructing industrial, business, and professional life.

"The schemes of selection of pivotal men have been announced and are in operation, and the first batches of men are being released. As it may now be possible to release men from the Forces more rapidly and sooner than was at first anticipated, the Government desires to accelerate the process of identifying the men in the Forces, who, though they cannot be treated as pivotal, have definite work awaiting them.

"The Government have therefore decided to afford the opportunity to employers of securing, by direct communication with their employees in the Forces, that those who were in their employment on or before August 4, 1914, and to whom they can now offer employment, shall be registered for demobilisation. Such a definite offer of employment in writing, if produced to his commanding officer by the officer or man concerned, will be accepted as evidence that employment is awaiting him, and the man will be registered by his commanding officer to be demobilised in the same way as a 'slip man' under the Civil Employment Form procedure and ranking for priority after a 'pivotal' man.

The demobilisation of the men over forty-one who were called up early this year under the Military Service Act No. 2, 1918, has been ordered. Six dispersal stations have been set up by the Army Council—five in England and one in Scotland—to deal with the miners, demobilisers, and pivotal men who are coming home in advance of general demobilisation.

EXHIBITIONS OF THE WEEK:

New Pictures in the National Gallery—Bronze Statuettes at the Fine Art Society.

THE Exhibition now being held in Room 19 of the National Gallery of paintings, some forty in all, acquired for the nation during the last four years of war, is one of the greatest interest, and which our readers would do well to see for themselves. It has already been noted very briefly in a previous issue of *The Builder*, but we propose now to give it the more detailed account which its merits certainly deserve.

These pictures have come to our possession partly by bequest, partly by purchase, through such excellent organisations as the National Collection Fund. The bulk of those by bequest come from the magnificent collection of Sir Henry Layard, which were for many years in his Venetian home, the famous Ca Capello on the Grand Canal. We had the opportunity some years ago, through the kindness of the late Lady Layard, of going over this collection with her private catalogue, marked in most cases with the original prices paid—and they really made us feel greedy. Sir Henry had bought with sound judgment, before "Old Masters" had attained their present sale value; and the result is seen here in the works by Gentile Bellini, Vittore Carpaccio, Bramantino, Palma Vecchio and Bartollommeo Montagna.

Space here forbids us to give these the description we might wish. We will only say that the Carpaccio is a Venetian idyll of the S. Ursula legend, the Bramantino a typical creation of a very rare and interesting master, the Montagna (SS. John Baptist, Zeno, and Catherine of Alexandria) a glorious vision, worthy of the great Venetian school. The Gentile Bellini paintings here are world famous. The Most Serene Republic had sent the famous Master to the Sultan Mahommed to paint his portrait; and here it is, along with a magnificent "Adoration." Another Venetian here of later date is Giovanni Piazzetta, the precursor of Tiepolo. This fine but unfinished painting we owe to Mr. Robert C. Witt. Delightful, too, the small paintings by Tiepolo himself of the story of the Trojan Horse, full of movement, colour and "brio." Lastly, we take Rembrandt's "Philosopher," marvellous in its mastery of light and shade, and the noble bequest by Alfred de Rothschild of Sir Joshua's great portrait of "Lady Bamfylde," which will be known to many of our readers through the famous mezzotint.

These paintings are our own—our heritage, recent but priceless. Should not our great Colonial Galleries, which are now forming, such for instance as the N.S.W. Gallery, with its present most capable director, seek to form a small but representative collection of the great old Masters, instead of concentrating their energies upon British Royal Academicians?

The Fine Art Society, besides the work of Raemakers, which we have already noted, has now a very attractive little exhibition of bronze statuettes by modern British sculptors.

We can only here give a list of names, and in some cases of works: Alfred Drury, R.A. ("Inspiration"), Sir W. Goscombe John, R.A. Gilbert Bayes ("The Sea King's Daughter"), B. McKennal, R.A. ("Salome," "Circe"), Albert Toft, Sir Hamo Thorneycroft, R.A. ("Teucer," "Girl Tying her Sandal").

Countess Gleichen's "Artemis" possesses great distinction of type, but little subtlety of modelling; she might be some beautiful English Society woman who has condescended to pose "in the altogether," as a goddess—because she feels herself to be one. In imaginative work we feel McKennal and Bayes are pre-eminent. Hartwell's "Magic Call," sound in modelling, is not very interesting: it is just the "magic" which is wanting, and this nude figure recalls the earlier Gibson tradition, which also had its merits, but is not our sculpture. We understand that this representative and attractive collection is not yet complete, and we may return to it later.

Book Received.

SPON'S PRACTICAL BUILDER'S POCKET BOOK, 1919. 10s. 6d. net. (London: E. & F. N. Spon, Ltd.)

CORRESPONDENCE.

Housing Plans.

SIR,—In perusing the numerous plans that are now being illustrated in the professional journals in connection with various housing schemes, it occurs to me that architects, when formulating those plans, might, with advantage, consult their womenkind as to arrangements that would make all the difference in the comfort of occupants of these dwellings.

Take, for instance, such a simple but necessary matter as the disposal of bedroom "slops." In the plans illustrated on page 381 of your issue of the 6th inst, these would have to be taken from the bedrooms, down the staircase, through the living room and the scullery, and out into the open before they could be disposed of. Such an arrangement in every day life must be most objectionable, and in the case of illness all the more so. Why, also, in so many instances is it thought necessary to compel the occupants of these model cottages to go outside to enter the water closet? Has any architect who continues to plan on these lines ever had experience of such an arrangement either in illness or in wet weather? I venture to think that architects who are engaged on these various schemes are not sufficiently getting away from the old lines: otherwise, matters like these and others would not escape attention.

EDWARD GABRIEL

Arts Club.

[***We believe architects generally fully realize the points referred to, but have not always been able to insist on the best arrangements.—ED.]

L.G.B. and R.I.B.A. Cottage Competition. Midland Area.

SIR,—Your correspondent, Mr. C. J. Dawson, in your issue of the 29th November, desires apparently some support for his criticisms of the designs submitted in this area. It may interest him to know these designs were commented upon in the *Leicester Mail* on the 22nd February last, a copy of which I enclose, which perhaps you may find space to reprint in an early issue of *The Builder*.

The history of this remarkable competition will not be complete unless, and until accounts showing the details of expenditure are published.

If these particulars are already presented to the public, will you be good enough to indicate where they may be found.

A. HALL.

We take the following from the letter referred to:—

(To the Editor of *The Leicester Mail*.)

SIR,—The announcement in the Press on the 7th inst. of the awards in the Midland area should be supplemented by further information to enable those interested in the competition to estimate its value to the community which has provided £5,000 to be expended upon it.

Official lists state that "107 competitors submitted 24[illegible] drawings," but this meagre statement does not permit an accurate estimate of the number of designs submitted. It appears from the official numbers placed on the drawings that 320 sets of plans were submitted in the three classes A, B and C. Each of these classes, according to the conditions, being represented by plans of three differently-arranged houses. We have accordingly 960 designs in these classes. A further Class D appears to be represented by 107 sets of plans, each plan comprising one or more differently-planned houses, and we have, therefore, apparently more that 1,000 designs requiring careful examination and comparison, consuming obviously a considerable amount of time.

The designs were not all delivered to the committee before 4 p.m. on Thursday, January 31, and the awards appearing on the 7th inst. leaves only six clear days for the whole task of the committee. It may reasonably be assumed that one day would be required for the unpacking, classifying, and hanging the drawings in the exhibition gallery, thus permitting only five clear days (in which occur a Saturday and Sunday) for examining and testing the designs and adjudicating the awards. At the outset, and before considering the merits of the designs, the committee would require to ascertain if all the designs complied with the conditions (which precluded the committee from delegating their work), and if the very moderate space of five minutes be allowed to each design for this purpose, only seven days—each of 12 hours continuous labour—would be required. This very necessary, although preliminary work, appears not to have been performed, as designs are included which did not comply.

In endeavouring to "see how the fates their gifts allot," we are confronted with what appears a curious situation regarding classes B and C. The accommodation in these classes is the same except that B has three bedrooms and C has two bedrooms. The design placed second in Class C is the same (except the bedrooms as explained) as the design placed first in Class B by the same authors. It is very noticeable that some of the premiated are not economical (a feature required by the conditions), and have many defects not discoverable in unpremiated designs.

. . .

A. HALL.
Architect and Surveyor.

Building Restrictions.

SIR,—We are pleased to note this subject has been brought up for discussion by a letter in your last issue from Messrs. Charles Heathcote & Sons. While there may be many arguments to bring forward, for and against the adoption of the report issued by the Ministry of Reconstruction on the question of Control, none can differ with the necessity of developing private building work at the earliest possible moment.

The Election is no doubt responsible for the present system of control remaining, pending the transfer to some other system, as for instance that covered by the above Report, but these influences should not be taken too seriously as a deterrent to resuming ordinary building work.

It must be obvious now the demand has abated for war work, coupled with the fact that the Government advocate transfer to private industry where possible, that there cannot be the opposition to private work hitherto met with; therefore it would appear expedient for building owners through their architects to at once press for licenses under the present system, and thereby help to bridge over the immediate difficulty of opening up.

That there will be many difficulties to surmount at the start of post-war building work is only too apparent, but sooner or later they have to be faced, and the earlier that attempts are made to get over the difficulties, the better will it be for all concerned in the great industry of building.

F. J. GAYER
E. A. Roome & Co., Building Contractors.

Limavady and District War Memorial.

At a public meeting held in the Alexander Memorial Hall, Limavady, on November 28, it was unanimously resolved "to erect a memorial in the town of Limavady, to commemorate those who fell, and the action of those who volunteered for active service, in the Great War, from this district"; and it was further unanimously resolved that such "memorial take the form of the erection, on a prominent site, of a building comprising a free library and reading and recreation rooms, on such a scale as would be worthy of the object." It is estimated that a sum of £2,500 will be required for the erection of the building. The Committee appeal for donations and subscriptions.

[CARPENTERS' COMPANY, LONDON WALL.

CITY GUILDS' TRADE CLASSES.

ON Tuesday last week, at Carpenters' Hall, London Wall, Sir Aston Webb, K.C.V.O., C.B., R.A., distributed the prizes gained in the 1917–1918 session at the Trades Training Schools, Great Titchfield-street, conducted by the following City Guilds:—The Carpenters', Glaziers', Joiners', Painter-Stainers', Plasterers', Tylers and Bricklayers', and Wheelwrights'. Mr. Ernest T. Pullein, Master of the Carpenters' Company, took the chair, and there was a large gathering.

Mr. Sheriff Banister F. Fletcher, F.R.I.B.A., in his annual report, said it was an extremely gratifying fact that notwithstanding that it was the fourth session held during the war, and despite the enormous drain on our manhood, the schools were still going strong. The session had been a very successful one, with a grand total attendance of 4,142, giving an average of 27.6 per evening throughout the session. That compared very favourably with the pre-war average of 51.04 in the session 1913–14. The schools were re-opened for the present session on September 23 last, and the number of students on the register was 177, which brought them back once more to the numbers of the pre-war session. We in this country had been banded together during the last four years in a confraternity for destruction in war, and it now behoved them to be equally united and determined for construction in peace. The whole social fabric had been rudely shaken, many of our most cherished prejudices had been overthrown in this earthquake of war, and they must strain every energy and use every means wisely to rebuild on sure foundations the house of our national life. The signing of the Armistice had opened the door of a new era in the history of mankind, and they must now start upon the work of reconstruction.

Before distributing the prizes, Sir Aston Webb delivered an address to the students. He remarked that a short time ago he went over the technical schools accompanied by the chairman, Mr. Sutton, and the director of the schools, Mr. Banister Fletcher. The work there seemed to him to do great credit to the students who had executed it. The students appeared to him to do great credit to their instructors, the instructors did great credit to the schools, and the schools did great credit to the Carpenters' Company and the other City Guilds associated with that Company in maintaining and managing them. He would like to remind the students that theirs was associated work—they were not like a painter, who had to work all day long by himself trying to get his picture right. They were among their own friends and people of their own age and their own thoughts, which must be a great advantage to them in their studies. The students of those classes were engaged in work which they could take a real pleasure in, quite apart from the fact that they hoped to make their living out of it as well. It was a most delightful thing to produce things and that was what they were being taught. If they took a pleasure in their work it would be more perfect—he did not mean only more highly finished, but they were likely to make their work fitted for the purpose for which they made it. In addition to getting technical skill in their various crafts, the students should try and acquire two other things of the greatest importance—one was memory and the other was imagination. They wanted to acquire memory in order that they might remember what they had seen and they were most fortunate in living in London because the Metropolis had the finest examples of every craft and every trade from the tenth century downwards, either in museums or in the public streets. He advised them to always keep their eyes open, for imagination would enable them to see what might be. Imagination was a thing from which they should try and see something which was not visible, for after all the unseen things were the real things. Probably the next ten years of their lives would settle the careers of those he saw before him and the way in which they did their work now was a matter of the greatest importance.

AN ordinary meeting of the Royal Institute of British Architects was held on Monday at 9, Conduit-street, under the chairmanship of Mr. Perkins Pick, F.R.I.B.A.

Deceased Members.

Mr. Guy Dawber (Hon. Secretary) said that since the last meeting, intimation had been received that the following members had been killed in action:—Lieut. Bernard Richard Penderel-Brodhurst (student), Second-Lieut. Thomas Jenkinson Waller, Second-Lieut. Philip Knight and Capt. John Arthur Metthew, R.E. (licentiate). He had also to announce the death of Mr. A. Gledding, Associate, elected 1893.

Housing: The Architects' Contribution.

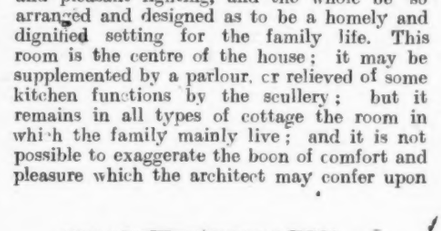
Mr. Raymond Unwin, F.R.I.B.A., read a paper on "Housing: The Architects' Contribution." Some of the lantern slides which the author showed we give as inset plates. After some interesting preliminary remarks, he said:—

Not very long ago it would have been safe to conclude that the family would live, prepare their meals, cook them and eat them in the same kitchen or living room. This mode of life is still common enough, and likely to persist long enough to be one of those for which provision must be made. The house adapted to this mode of life being the simplest in character, we may call Type No. 1. The arrangement is common, both in houses having a living room and scullery, and in those which, in addition, possess a parlour or second sitting room. The addition of the parlour indeed relieves to some small extent the great pressure of use on the living room, which is one cause of discomfort with this arrangement, not, however, to the extent which might be supposed. Relief is being widely sought rather in the opposite direction, by making greater use of the scullery and so freeing the living room from the cooking of meals and much of the preparatory work connected therewith. When practically the whole of the cooking and much preparation is provided for in the scullery, the living room ceases to be a kitchen, as in the first type of house. This involves very considerable changes in planning and equipment, and the use of two fires, or the exclusive use of gas for cooking. The house adapted completely to this mode of life we will call Type No. 3, because there is the compromise between the two modes to be provided for, in which a part of the cooking is done in the scullery on the gas-stove, but part is still done in the living room when the fire is lit there; this we will call Type No. 2. . . .

For the older Type 1, with its kitchen-living-room and scullery, or the newer Type 3, with its living room and scullery-kitchen, it is fairly simple to decide on the best details of arrangement. The tools, the materials, and the storage for these accessories of the great culinary mystery which figures so largely in the work of a small house, should naturally follow the altar on which the ordeal by fire takes place! In Type 2, the compromise house, it is not so easy to determine which is the right arrangement; but there we have, at least, the consolation of knowing that equally it is not always easy to determine which is the wrong one! If however, we picture to ourselves the woman of the house performing her rites and mysteries, as we locate the fire, the larder, the table, the cupboards, or the living room and scullery doors and windows, we shall perhaps most readily adapt our design to whichever of the three modes of life we are seeking to house.

To justify what has been said about the complexity of the problem, perhaps I may recall in brief summary the chief requirements, provision for which is now considered desirable in a good cottage; and at the same time I may suggest to you how type plans are of service in bringing these points before us, and in showing general arrangements of the parts suited to various aspects. . . .

We will commence with the heart of the house. The living room should be large, with a comfortable fireside free from doors; the range, whether placed in this room or the scullery, should have side light, preferably from the cook's left hand; there should be table and cupboards convenient for use with the range. The space near the window, or windows, which is specially valuable, should be as free as possible from doors, or the traffic ways to doors (including cupboard doors) In the living-kitchen there should be planned a space for a second table; for it is most harassing that a family should have to put away all mending, dressmaking, or writing, before a meal can be prepared or served. There should be as few doors as possible and they should open so that the least valuable part inside the room must be used for passage space. For furniture there must be the meal table and seats, the fireside chairs, the second table, the dresser, and the couch for resting. The desk or the piano have also frequently to find a place; wall space, therefore, is of value, so that some length of room or added recess will help. Parenthetically may I mention the great value of trying all this furniture in its place on the plan? Add to these requirements that this room should, if possible, have a south-east window, and in every case must have some sunny aspect, and as attractive an outlook from the windows as may be; that it should be well-proportioned, its windows give efficient and pleasant lighting, and the whole be so arranged and designed as to be a homely and dignified setting for the family life. This room is the centre of the house; it may be supplemented by a parlour, or relieved of some kitchen functions by the scullery; but it remains in all types of cottage the room in which the family mainly live; and it is not possible to exaggerate the boon of comfort and pleasure which the architect may confer upon



Group formed by type plans adapted to aspect and position.

the occupants, by providing a well-planned and beautiful living room. The scullery may be regarded as the domestic workshop, and labour-saving should especially be aimed at here. The cottager's house has generally to be run by the unaided labour of one woman, whose life is mostly occupied in cooking, cleaning, making beds, mending clothes or minding the children. She should be given every convenience in the scullery, but no encouragement to live there. A sink must be provided at the right height to avoid needless stooping, with place for soiled pots and pans on the right hand, and on the left hand for laying them down when cleansed or standing them in the draining rack. Hot and cold taps are desired and a window over for light, for the cleansing powers of light and

A Picturesque Cottage.
(Shown by MR. UNWIN.)

air, for outlook, and to facilitate the duty of minding the children when they are in the garden. The washing copper is usually required, fitted with steam outlet and hood, and with taps for filling and emptying; the former may, with advantage, fill from the hot-water pipe, especially in the case of a gas-fired copper. A grate or stove for drying clothes, gas-cooker or cooking range—the latter, we hope, soon of the efficient cooking machine type already referred to—must one or both be provided for, according to circumstances, storage or standing space for washing utensils, including wringer or mangle, for pots, pans, brushes, buckets, &c., and for the accessories of cooking, in so far as these are not better retained in the living room for the particular type of house in question. Saucepan cleaning, knife burnishing, and boot polishing—all have to be thought of, and involve a table to work at, and more storage places. A lobby, porch, or outside bench and shelter may relieve the scullery of work and dirt, any solution of the washing question by the adoption of the joint or communal laundry, the "bag wash," the problem of planning a well-equipped and convenient scullery within the limited space which, in view of the other demands can usually be allotted to it. It is clear that cleanliness, convenience and compactness, with no frills, must be the aim in the planning and treatment of the scullery. Reasonably handy to the room which is used as kitchen, but on the north side of the house, in a position cool and airy, a place must be found for the larder, which should be of sufficient size in view of the distance of the house in question from a market of shops, well-fitted with shelves, properly lighted and ventilated, protected from flies, and treated specially for cleanliness. The fuel house, so placed that coal may be put in from outside and fetched for use under cover, large enough to hold at least a ton of coal, and more in rural areas, must be fitted in the plan usually accessible from the back lobby.

Where the house has no parlour to build over, and consequently the first floor area is all too small to provide three decent bedrooms, the w.c. and the bathroom may also need to be provided for on the ground floor. Other reasons, such as the absence of a pressure water-service in rural districts, or the prevalence of some specially dirty occupation, may indicate the ground floor as the better place for the bath-room. It may be conveniently located near the foot of the stairs, or entered from the back lobby, or even the scullery. When in the absence of water service it must be filled from the washing copper, this will influence its position; and in all cases, whether downstairs or up, simplicity and economy both in water

supplies and drainage must be influential considerations in the grouping of all the parts which require these services. The w.c., if downstairs, may be entered from the back lobby, or from a sufficiently large and airy entrance lobby; if upstairs, it should be entered from the landing near the window, which should be regarded as necessary to light and ventilate every building.

We must not be guilty of the traditional omission of the stairs. These should be easy, well lighted by the last-named window, and wide enough for reasonable furniture; they should start from the entrance lobby, and land so as to give direct access to all bedrooms, and to bathroom and w.c. when on the first floor, without needless waste of valuable floor space, which would be better added to the bedrooms. The stairs and the proper apportionment of the bedroom floor space are very determining factors, especially when it is remembered that the space must be so allotted to the different rooms, that one having the best aspect may be large enough to be comfortably occupied by the parents, and one or two small children; a second may be large enough for two adults, and the third at least large enough for two children, taking as an approximate basis a minimum of 500 cubic feet of air space in the room for an adult, and half that amount for a quite young child; and when, owing to the aspect, two at least of the bedrooms must be placed on the more sunny side of the house.

Each of the bedrooms themselves will demand some care in arrangement. Suitable places for the beds must be found, out of direct draughts on the one hand, but not thrust into close corners on the other. The type of room which leaves only a passage-way all round the bed, and no square space available for occupancy, is not desirable. A corner free from bedroom furniture and suitably placed as to window and fire which could hold a chair for reading and a small writing table, would be a priceless blessing to many boys or girls whose individuality may need only such quiet and privacy to develop latent tastes or talents for the enrichment of their late life. . . .

I have left until last the considerations which affect the parlour, both because there will still be houses built without this additional room, and because all the other parts of the house maintain much the same relations to one another whether there is or is not this extra apartment. It is an added comfort and convenience, but is less than might be expected one which affects the general life and work of the family. It affords valuable occasional relief to the living room, rather than effective constant relief. Hence there is no justification for reducing the living room when the parlour is added, though there may be for increasing the living room if the parlour is omitted. Some families will prefer one room of really ample size to the normal living room and parlour, and there will also be a place for the arrangement which allows the parlour to be thrown open to the living room by folding-doors. There can, however, be no doubt that the majority of working class tenants desire the parlour or second room for social intercourse with friends, both of the elders and the young people, for parents' quiet and children's home lessons, for interviewing occasional visitors, as a refuge in case of sickness or convalescence, and for similar purposes, which it must be admitted are not properly met even by the considerable enlargement of the living room. To the somewhat long summary of requirements already named, therefore, we must add those of a small parlour; a room which should be planned to encourage reasonable use by its comfort and attractiveness.

The lecturer then made some interesting remarks on the continuous tradition of cottage planning and design.

Mr. W. Dunn proposed a vote of thanks to Mr. Unwin, and remarked that that gentleman was a member of the Local Government Board Committee, which had presented one of the most valuable reports on housing he had ever read. It was a report which every architect working on the problem should study.

Mr. Bridgman Russell seconded the motion, and said it had been the privilege of some of them to work with Mr. Unwin during the war in the erection of buildings which had to be carried out in a desperate rush. Amongst the works were many ranging from wooden huts to large buildings, and the experience had been that as much thought was required for the small as the large building, and they owed much to Mr. Unwin that the standard reached had been much higher than in previous days. He trusted that, in connection with the national housing schemes, local authorities would show a sweet reasonableness and that architects would be engaged. He hoped the Institute would consider this matter, so that a few syndicates might not be found to exploit the opportunity offered by the schemes at the expense of fellow-architects. Advisory architects should be selected to work in collaboration with surveyors of building authorities in different centres in preparing town-planning schemes, and the architectural work should be distributed amongst the architects in the locality. This would prevent the monotony of repetition and stimulate a healthy rivalry between men to produce their best. The subject of standardisation was, he feared, a bogey to many, but an architect well known to the public had shown what could be done with toy stone building bricks, and he thought the same thing could be done with real houses

Mr. H. H. Statham said the author had referred to the necessity for placing fireplaces where there was a good light and a left-hand light, and that was a thing most often neglected. He went very carefully over the Hampstead Garden City, and three-fourths of the fireplaces were in the worst place for light. Another thing he was struck with in the garden cities was the mistake of attempting what he called sham picturesqueness, and especially in two ways. One was the introduction of very small windows, and the second the high pitch of the roofs. Seeing the progress made in the use of concrete blocks it had struck him as to why they should be afraid of flat roofs. A good deal might be said against flat roofs, but by their employment they did get more commodious and simple rooms. He suggested that architects for workmen's houses should take that point into consideration.

Mr. H. V. Lanchester strongly emphasised the suggestion that it was necessary as architects that they should visualise what went on in the cottage. They were familiar in their training with the necessity for an analysis of the function preparatory to the synthesis of their building, and it was only the fact that they had had little to do with the labourer and his cottage which had caused them to neglect the same method of working there. They did it in the case of the country house and the city office, but when they saw plans put forward for labourers' houses they felt the architect had not really understood how the labourer's family carried on their home life. The answer some architects might make that they had lived in a cottage was not necessarily conclusive. He had himself lived in a labourer's cottage, but it was not life under the same conditions that the labourer led. They had not only got to imagine how the labourer lived, but must go a little further and try to mix that up in their minds with how he ought to live. It was no good designing a cottage for a man to live as they thought he ought to live, but must temper that with the way the man wanted to live, and just give a little hint from time to time so that he could improve his methods of living.

Mr. Maurice Hulbert said they must not forget the different classes for whom the cottages had to be built. Taking the Metropolitan area we had the inner suburban, the semi-suburban and the rural, and each required different treatment. The tendency always seemed to be to design pretty semi-detached cottages which were suitable only for the outer suburbs and the country. Then with regard to the classes for which they had to cater, there were the clerks, the skilled mechanics and the unskilled labourers. The clerk certainly wanted a parlour, and so would the skilled artisan generally, but the unskilled labourer did not. They were dealing generally with three-bedroom houses, but a number of cottages with two bedrooms were wanted for two persons. In the semi-suburban suburbs, also, there should always be a certain number of flats. He hoped architects would be employed by the local authorities, but there was a good deal of jealousy, and the local authority too often threw the work on its surveyor. He lived at Ealing, and he suggested that architects should visit Brenthen suburb, which was an extraordinary success. It was the work of a public utility society and paid 5 per cent.

Mr. T. Fyfe expressed the hope that all architects would try and take part in the design of the houses to be built, for such an opportunity would never occur again. He quite agreed with the last speaker as to the necessity of providing for the poorly paid clerk class, and he also hoped that the effort to be made would result in raising the standard of the houses built for the middle classes.

The Chairman said they were extremely fortunate in having Mr. Unwin at the Local Government Board to give such enlightened views in regard to what should be done in the way of planning cottages. He agreed with Mr. Statham and thought it was possible to design cottages of good appearance with a flat roof, but he also thought a good deal could be done with the ordinary 30 deg. pitch which one usually associated with speculative building With the low-pitched roofs they did get the rooms square and he believed the housewife preferred them so. In his district they induced the local authority to entrust architects with the work and he believed a good deal could be done if architects would seek representation on the various local bodies.

Mr. Raymond Unwin in reply, said Mr. Lanchester was right in saying not much knowledge is gained by taking a labourer's cottage for a summer holiday. As a young man he lived with a workman's family, and when one saw the life going on day by day, it enabled one to visualise. He agreed with what Mr. Statham said as to sham picturesqueness, but the fact was that in the past they had got down to such a deplorable condition that there was a violent reaction and anything which broke away from the old state was regarded as something desirable. It was quite true that if a material like slate was used for roofing, it gave a good slope or a low-pitch, but he would be sorry to see tiles used for a low-pitched roof. It was true there were differences between the clerk, the citizen, and the labourer, but he found many labourers more anxious to have a parlour than the clerk. They could not make clear distinctions like that, but in the three types of houses he had alluded to there was provision for all three. He would issue a warning with regard to the two-bedroom houses. Surely in the country they had such a large number of cottages defective in accommodation that the real need was for good cottages.

The Chairman announced that the next meeting would be held on Monday, January 6, when an election of members would take place. Mr. Delissa Joseph had given notice to bring forward a motion that a deputation be sent from the Institute to the Minister of Reconstruction to lay before him the arguments for the speedy removal of the restrictions on building. On January 20, Mr. M. H. Baillie Scott would read a paper on "The Making Habitable of Old Dwellings in Town and Country."

Georgetown, Glasgow.

Mr. Bonar Law and Mr. Barnes received a deputation at Glasgow recently regarding the future of Georgetown, the National Filling Factory on the outskirts of Glasgow. The deputation pointed out that Georgetown, recently closed down, afforded a unique opportunity to the Government for the establishment of a model industrial community, on account of the healthy surroundings, good water supply and drainage Mr. Bonar Law and Mr. Barnes expressed sympathy with the proposal, promising to bring the matter before the Minister of Munitions

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ILLUSTRATIONS.

The Rebuilding of Athens.

THESE illustrations are given in connection with the lecture which Mr. T. H. Mawson delivered on the subject at King's College last week, a report of which we give on p. 425.

Housing Plans.

At the meeting of the Royal Institute of British Architects on Monday Mr. Raymond Unwin lectured on "Housing," and showed lantern views in illustration of his remarks. The subjects we give were referred to in the course of the lecture.

Proposed War Memorial.

This scheme embraces a grand memorial avenue and high level bridge leading practically direct from Piccadilly-circus to the new site for Charing Cross Station on the south side of the Thames. The improvement and enlargement of Leicester-square on the lines indicated would provide an important approach to the new avenue from Piccadilly-circus, and at the same time give direct access eastwards to the Strand. High and low level embankments are shown on the south side of the Thames with prominent sites on the river front for the new station and other public buildings.

Further suggested improvements are the formation of a "Place" at the junction of the proposed new avenue and the Strand, also at Stamford-street and Waterloo-road, with an inclined approach therefrom to the high level of Waterloo Station.

M. B. BENNETT.

OBITUARY.

Mr. Alfred Gladding.

ON Monday, December 2, at The Briars Wingle Tye-lane, Hornchurch, the death occurred of Mr. Alfred Gladding, A.R.I.B.A., of 49, Finsbury-pavement, E.C., aged fifty years.

Mr. W. V. Gough.

We regret to announce the death in his 77th year of Mr. W. V. Gough, F.R.I.B.A. senior partner of the firm of W. V. & A. R. Gough, of Bridge-street, Bristol. He practised for many years in Bristol, and amongst the numerous public buildings carried out by the firm are the Docks offices and the Gas Co.'s offices, Bristol; the Grammar Schools and Kay Monument, Bury, Lancs; the Institute and Library, Newport, I.W.; the Colston Girls' Schools; the Lord Winterstoke Memorial Wing of the Bristol Grammar Schools, besides many elementary schools in Bristol; the Cheltenham-road and St. Philip's Public Libraries; the Cabot Memorial Tower, Brandon Hill, Bristol. A large amount of ecclesiastical work has been carried out by the firm, the most notable of which are the following churches:—Holy Trinity, Knowle; St. Anselm's Clifton; St. Aldhelm's, Bedminster; and St. Ambrose, besides many restorations of the ancient churches in the city.

A London Time-table.

A useful time-table and railway guide has just been issued by Messrs. The Triplex Safety Glass Co., Ltd., 1, Albemarle-street, W. It is entitled "London Time-table and Red Rail-guide," and includes tram, motor-'bus and steamship routes. The price is 1s.

THE SOCIETY OF ARCHITECTS:

PROFESSIONAL DEFENCE.

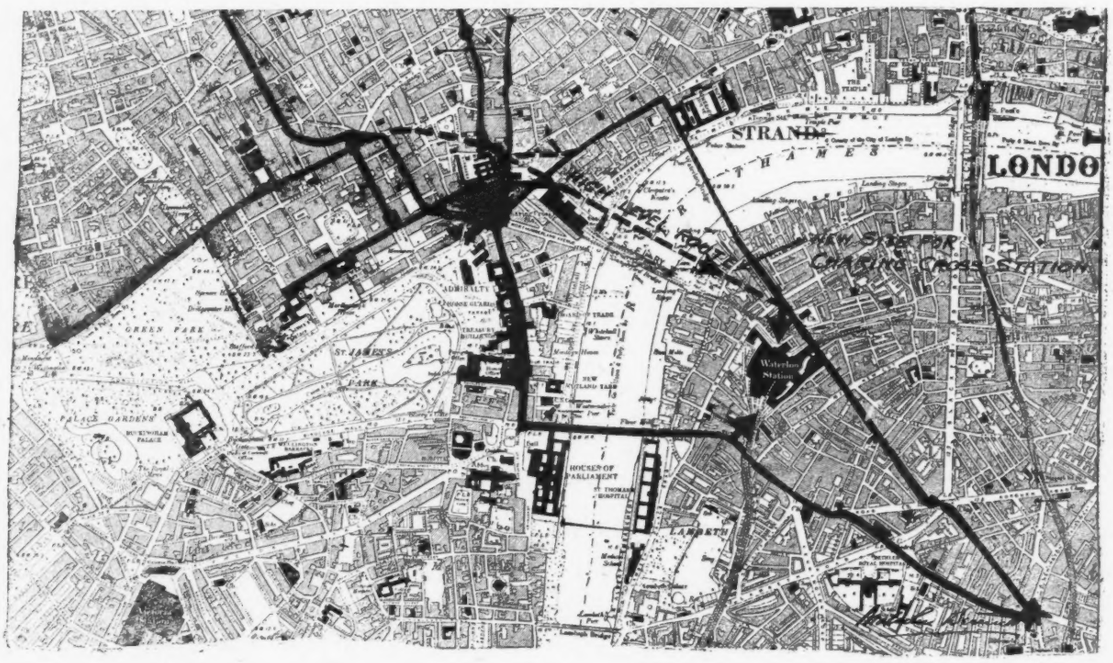
THE Council of the Society of Architects has recently adopted a very comprehensive scheme of reconstruction calculated greatly to increase the resources, scope, and utility of the Society, render it more extensively serviceable to its members, and facilitate its work in connection with the various progressive measures of reform which it has in hand. Some of the proposals will develop with the growth of the Society, but the chief and most important one, which is connected with Professional Defence, is now in operation.

The Council has established, with the guidance and approval of its legal advisers, regulations enabling members in certain cases to apply to the Society for advice on points of law arising out of their professional practice, and for assistance in helping them to defend cases where questions of professional principle are involved. This scheme is an extension of the scope and power of the Board of Professional Defence set up by the Council some years ago, in connection with which the nucleus of a Defence Fund is already in hand.

It is not intended that these facilities for advice and defence in professional matters shall be available for architects' clients. These will continue to seek their own legal advice as heretofore. The Society's scheme is intended solely for the assistance and protection of architects as such, and its scope is restricted to architects who, being members of the Society, may have occasion to apply to their Society to assist them in protecting their own professional character, status, and interests, and in promoting honourable practice. This extension and development of the Society's activities will, it is thought, be of considerable general interest, and the Council cordially invites any architect who desires to know more about the Society and its work to communicate with the Secretary at the Offices of the Society, 28, Bedford-square, W.C. 1.

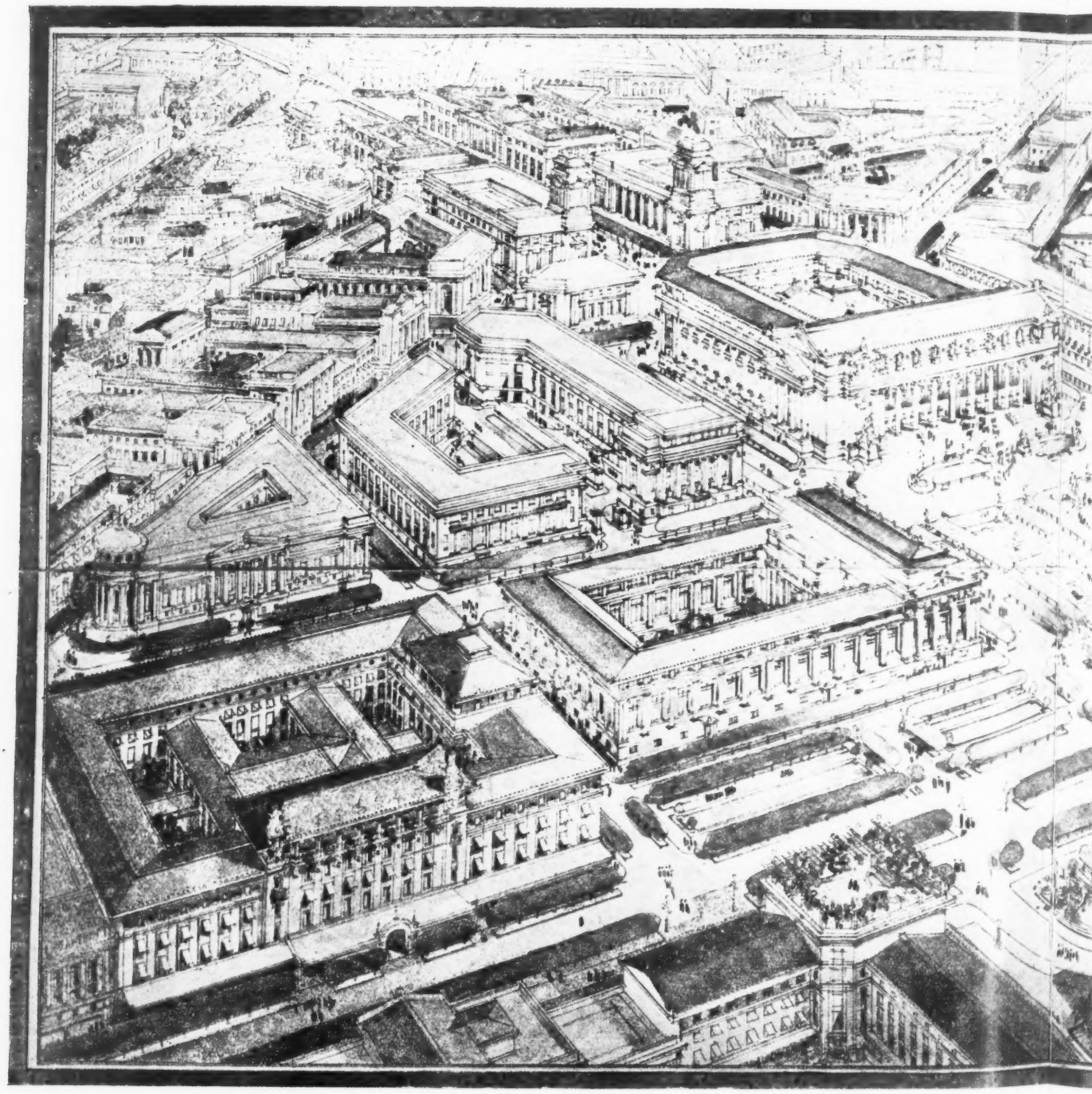
Civic Adviser to the City of Jerusalem.

Mr. C. R. Ashbee, F.R.I.B.A., has been appointed Civic Adviser to the City of Jerusalem. We understand that he returns to Palestine in January to take up his duties.



Suggested War Memorial Avenue and Bridge.

BY MR. MALCOLM B. BENNETT, LIC. R.I.B.A., A.M.T.P.I.



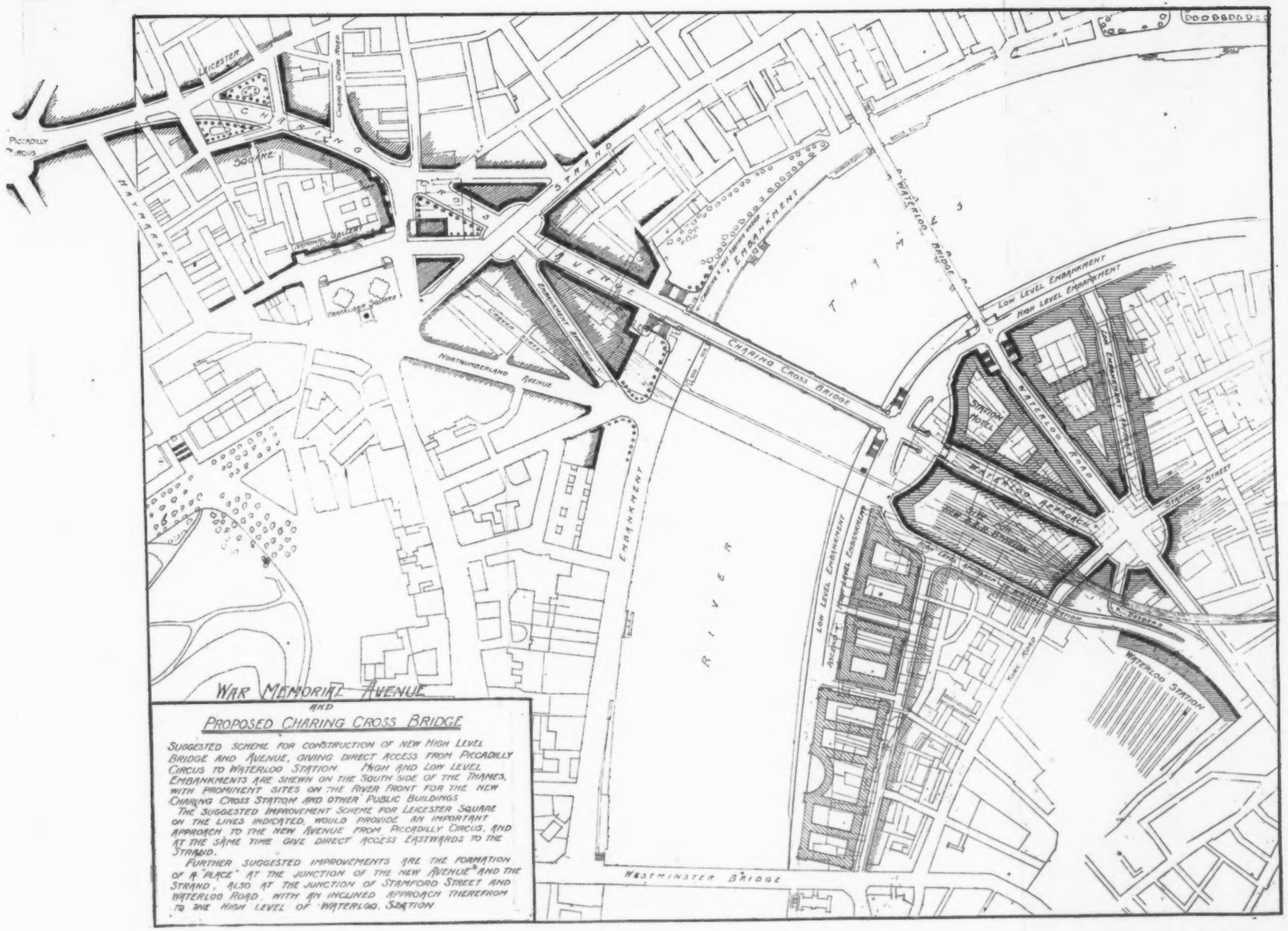
NEW CITY CENTRE FOR ATHEN. By

ATHEN. By Mr. T. H. Mawson.

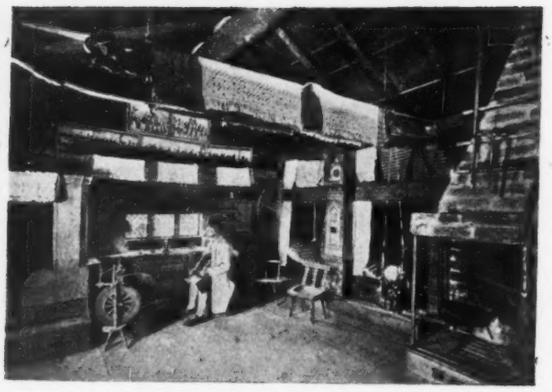
WAR MEMORIAL AVENUE
AND
PROPOSED CHARING CROSS BRIDGE
Suggested scheme for construction of new High Level Bridge and Avenue, giving direct access from Piccadilly Circus to Waterloo Station. Low Level Embankments are shewn on the South Bank of the Thames, with prominent sites on the River Front for new Charing Cross Station and other Public Buildings.
The suggested improvement scheme is designed on the lines indicated, would provide a direct approach to the new Avenue from Trafalgar Square and Piccadilly Circus, and at the same time give direct access to the Strand.
Further suggested improvements are the formation of a "place" at the junction of the new Avenue and the Strand, also at the junction of St. Martin's Lane and Waterloo Road, with an inclined approach from the High Level of Waterloo Station.
Charing Cross Station
Northumberland Avenue
Embankment Gardens
Low Level Embankment
High Level Embankment
Waterloo Approach
Station Hotel
Site for New S.E.R. Station
Waterloo Station
Westminster Bridge
River Thames

SUGGESTED WAR MEMORIAL AVENUE AND BRIDGE.
By Mr. Malcolm B. Bennett, Lic.R.I.B.A., A.M.T.P.I.

THIS BOOK FROM PRINCETON UNIVERSITY 1918


LEICESTER SQUARE
PICCADILLY CIRCUS
HAYMARKET
CHARING CROSS ROAD
STRAND
AVENUE
EMBANKMENT
WATERLOO BRIDGE
LOW LEVEL EMBANKMENT
HIGH LEVEL EMBANKMENT
CHARING CROSS BRIDGE
NORTHUMBERLAND AVENUE
TRAFALGAR SQUARE
STATION HOTEL
WATERLOO ROAD
WATERLOO APPROACH
STAMFORD STREET
RIVER
THAMES
WESTMINSTER BRIDGE
WATERLOO STATION
WAR MEMORIAL AVENUE
AND
PROPOSED CHARING CROSS BRIDGE
SUGGESTED SCHEME FOR CONSTRUCTION OF NEW HIGH LEVEL BRIDGE AND AVENUE, GIVING DIRECT ACCESS FROM PICCADILLY CIRCUS TO WATERLOO STATION. HIGH AND LOW LEVEL EMBANKMENTS ARE SHEWN ON THE SOUTH SIDE OF THE THAMES, WITH PROMINENT SITES ON THE RIVER FRONT FOR THE NEW CHARING CROSS STATION AND OTHER PUBLIC BUILDINGS.
THE SUGGESTED IMPROVEMENT SCHEME FOR LEICESTER SQUARE ON THE LINES INDICATED, WOULD PROVIDE AN IMPORTANT APPROACH TO THE NEW AVENUE FROM PICCADILLY CIRCUS, AND AT THE SAME TIME GIVE DIRECT ACCESS EASTWARDS TO THE STRAND.
FURTHER SUGGESTED IMPROVEMENTS ARE THE FORMATION OF A "PLACE" AT THE JUNCTION OF THE NEW AVENUE AND THE STRAND, ALSO AT THE JUNCTION OF STAMFORD STREET AND WATERLOO ROAD, WITH AN INCLINED APPROACH THEREFROM TO THE HIGH LEVEL OF WATERLOO STATION

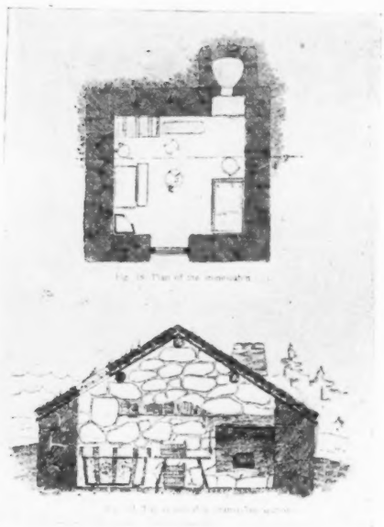
SUGGESTED WAR MEMORIAL AVENUE AND BRIDGE.
By Mr. Malcolm B. Bennett, Lic.R.I.B.A., A.M.T.P.I.



INTERIOR OF THE "MORA HOUSE," SKANSEN, STOCKHOLM.

INTERIOR AT SKANSEN, STOCKHOLM.

ALMSHOUSES, BRAY.



STONE CABIN.

AN OLD INTERIOR.

SWISS FIRE HOUSE.

SOME ILLUSTRATIONS SHOWN BY MR. RAYMOND UNWIN IN HIS LECTURE ON "HOUSING" AT THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

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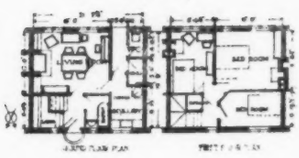

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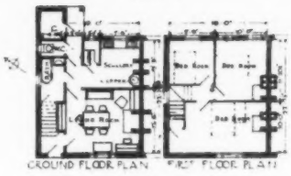

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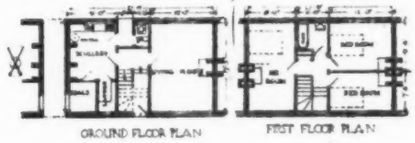

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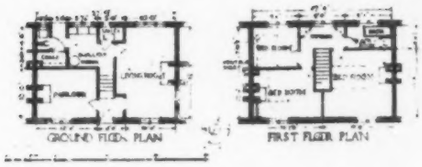

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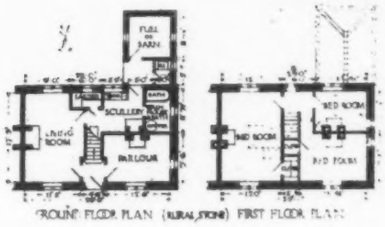

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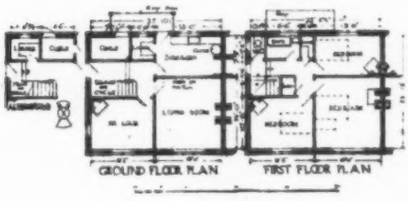
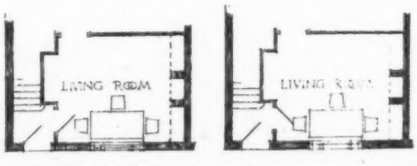


DOORS WHICH DESTROY THE COMFORT OF THE ROOM.



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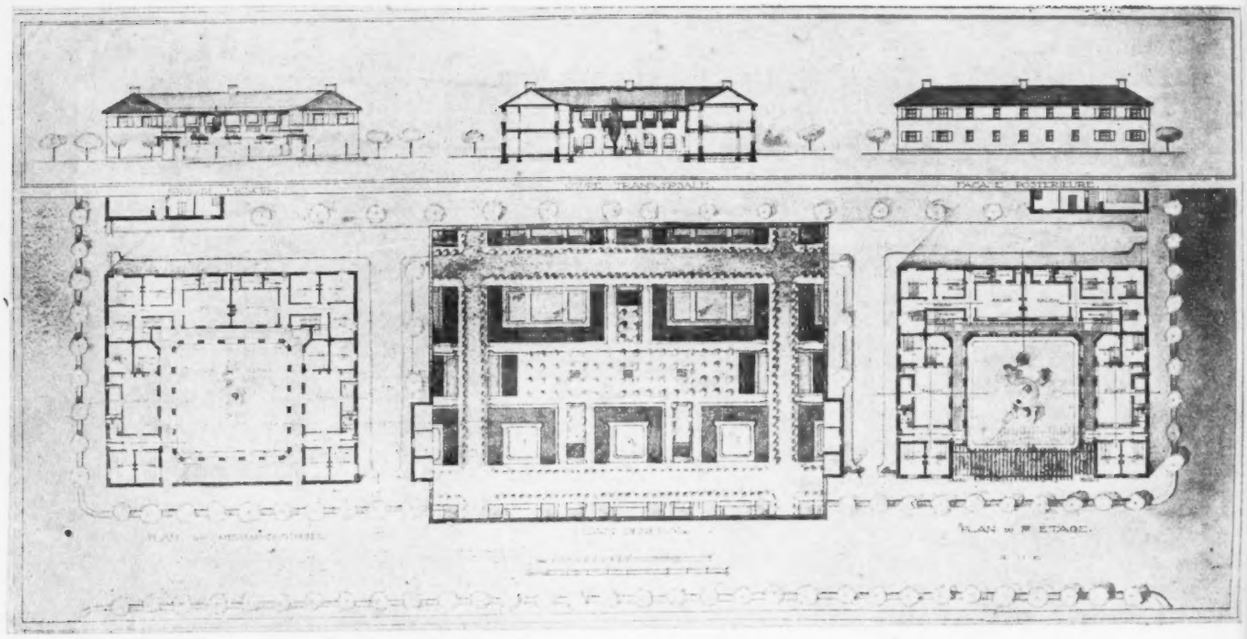
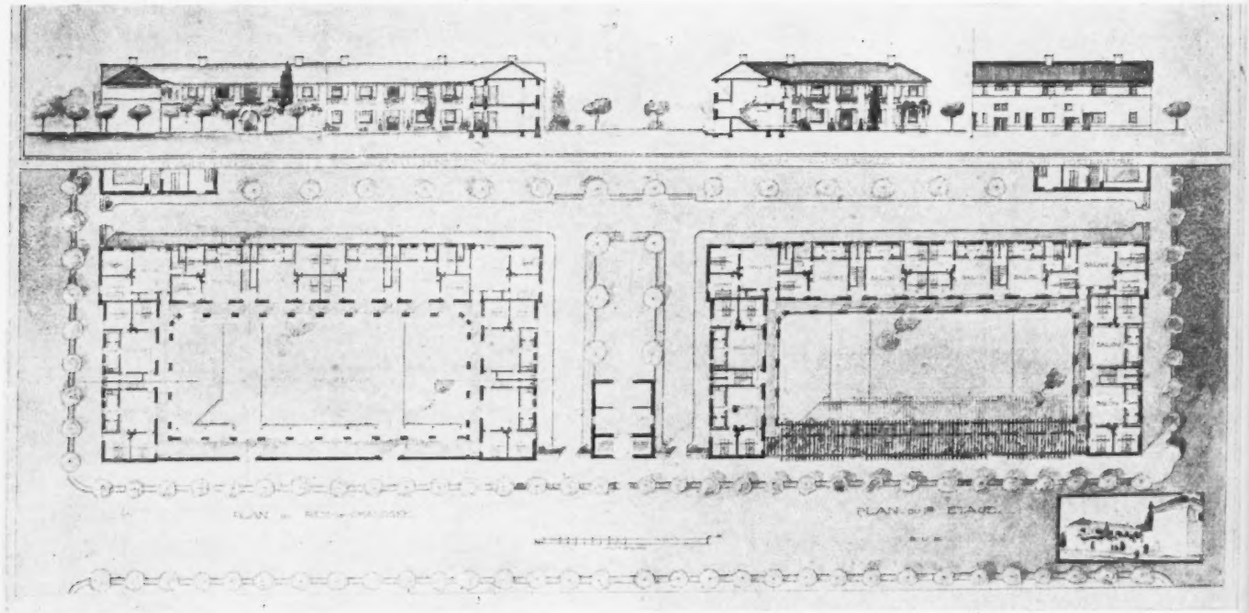
TYPES OF HOUSING PLANS. ILLUSTRATING MR. RAYMOND UNWIN'S LECTURE ON "HOUSING" AT THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.





HOUSING DESIGNS FOR ATHENS.
By Mr. T. H. Mawson.

A NATIONAL ARCHITECTURE.—XII.

BY W. R. LETHABY.

EDUCATION FOR BUILDING.

ARCHITECTURE is an operative art, an active service, rather than a studio study or office profession. Our education has to promote building courage, structural resource, scientific assurance, quick intelligence, the organising sense, adaptability, and the inventive instinct. The type of mind produced by the training should be rather that of the Navy lieutenant than of the painter, poet, priest, or actor. We have to think and will a living architecture. In an American journal I read: "America must become *ship-minded* to win maritime power. We must have technical training and *morale*, and exert our national genius for invention and organisation, holding our own through the development of new methods with something of spiritual quality." It is the spiritual quality, a high tradition, duty, which have to be aroused in our education and fixed on an exalted ideal. We architects must become *building-minded*. We have the phrase *esprit de corps*, but it has taken on, with the bent of our minds, a thin and mean meaning of professional etiquette; we have to give it a deep human content; it must become a spirit of devotion, building patriotism, civic responsibility. It is not enough to know that long ago Athens had form: our cities must put on form themselves. Architects are the proper watchmen for city order, and they have to see that the anarchy and material wretchedness of our towns are mitigated; we have to demand, in works, the evidence of the civilisation we talk about in words. We must rouse expectation, enthusiasm, and some pride of place. The first need of architectural education is to found it on general ideas of service; it is a question of tempering the souls of the students; they must be made into missionaries of civilisation. Architecture is a mode of civic virtue. I am a shy person, and would much rather talk of ateliers, and projects, and perspectives, and shadow-projections; but these, good or evil, are only accidents of machinery; they are no basis for education. As Cromwell saw for his army, so we require a "new model: strengthened by discipline and touched with devotion." The old system of education, with its competitive designs and prize-fattened students, brought out an acute individualism, even an Ishmaelism. This created a false temper which, in hope of originality, fell into mere cleverness and eccentricity. It magnified drawing, design and "style" to the neglect of the work and the ignoring of human service. Ours is an art of co-operation, and we must bring in team work from the beginning. Students should work out schemes in groups, as Willars de Honnecourt devised a plan in conversation with Pierre de Corbie. They should form guilds and discussion groups, but ever seeking for agreement and discipline, not for carping and disintegration.

The old prize system has been terribly wasteful and distracting. It is at this time probably too closely knit in our whole educational system to be eliminated altogether, but I am sure that very few prizes should be given for "designing"; they should be reserved mainly for those things which can be brought to book and demonstrated. Paper designing in the air is too attractive and alluring; it may be an architectural intoxication. Then the judgment of the adjudicators depends on no secure base, but merely on their shifting tastes. Prizes should rather be of the nature of scholarships for research theses and modern scientific work of precision. The culminating prize for one student in the year I should like to be a setting-up-in-business bursary. Such a fund would be infinitely more serviceable than the travelling studentships with £200 to be squandered at foreign *tables d'hôte*. Foreign study should rather be directed to keeping us acquainted with modern developments in city planning and improvement than to "style" examples. I speak, of course, of a general aim; I would not try to forbid any real interest. But we have to become practical, and of our own time, and to drop dazzling young students with vague aesthetic talk. They have to aim at accuracy, clearness and, above all, courage, while too much antique makes one dreamy and breaks the spirit; Mahomet refrained from seeing Damascus, as no one might enter Paradise twice.

A Scientific Foundation.

It is quite disastrous how we are mystified by words which come between us and the things they should describe. *Art* is doing work. *Science*, among other things, is knowing how to do it. That is plain and simple enough, but we have let myths grow up around both words. "Art" is something uncanny, which may be done by a genius who moves his hands in a certain rapturous way, and turns up his eyes, and knows by inspiration about taste and beauty and proportion—or says he does! "Science" is conjuring with glass vessels, and holding wicked views on the Pentateuch. I believe that we should recast architectural education, and make it scientific throughout—nothing but what can be demonstrated "this is so" can properly be taught; the rest is opinion. It is undesirable to mix science and non-science—I won't say nonsense—in the same educational course; it is always open to the student to pick up his æsthetic opinions outside. Education requires concentration, movement, heat; and in the attempt to sandwich hard facts and very soft opinions together the hard part goes under.

I have before me the report of a conference on "The Neglect of Science," held 1916, under the presidency of Lord Rayleigh. The opinions of the scientific experts may be taken for granted, but almost equally strong views were expressed by others. The Poet Laureate said:—"Our boys' education needs entire reform. Not only should natural science be introduced, but all teaching of all subjects should be scientific in method. For many years I have looked to science to reform the teaching of languages. Our present teaching is absurdly wasteful of time. Further than this, I contend that our present methods, being unscientific, are actively pernicious. Our present system teaches confusedly. . . . . Then as for art. It would seem at first that science cannot make out a very good case. But here one may say that the classical education has done nothing to save the art of the country. It might be accused of having produced Philistinism. The artist will not be killed. What we may lose by teaching natural science, and rejoice to lose, is the pseudo-artist—the man who finds sham artistic inventions of value in a society that is too ignorant to despise his impostures. . . . . The rudiments of natural science are in themselves rewarding. It is the grammar of the universe, without which no man can ever hope to read, in its full significance, the epic of his spiritual existence."

Dr. Macan, the Master of University College, Oxford, said:—"There is one point of view which I, as a Hellenist, should like to put before this meeting. I think that the men who are demanding an extenson of scientific education are working in the true interests of Hellenism and in the spirit of ancient Greece. There were four elements in the education of the Greek undergraduates. The first was gymnastic, or the cultivation of the body. The second was the study of Nature. The third was, not the study of ancient Babylonian or any other foreign language, but it was the study of Greek and Greek literature, *in primis* of Homer. That is a good example, but we should be applying it by studying Shakespeare. The fourth element was the inculcation of reverence for the gods. If we want to reform our education in the spirit of the Greeks, we must make a knowledge of English one of the corner stones, and the other corner stone must be the study of the world in which we live."

Dr. Farnell, Rector of Exeter College, and author of the great work on "The Cults of the Greek States," said:—"I am wholly of opinion that these resolutions are of urgent necessity for the present stress and for the future conditions in which we shall find ourselves. Anyone could pile up examples of the lamentable results of the lack of science. I am sure it will be very good for us if you can succeed in persuading the Government to give a part to physical science in their examinations, since these examinations dominate the careers of boys at schools and young men at Universities. Then our men will no longer be without understanding of the inevitableness of physical science in so many important departments."

If such thoughts as these are stirring among literary men and Greek scholars, it is fully time, perhaps even a little late, for architects who deal with such an exact matter as building to acquire a thoroughly scientific training. I can see that when once our customs of building are re-examined and refounded in accord with modern ways of thinking that we should soon develop special forms of geometry, mathematics and mechanics proper for it; and the "pseudo artistic" elements would gradually fall away. Up to a point coeducation with engineers would probably be best; in any case every architect should have passed through an engineering course in a school of technology.

A SCHOOL IN THE STREETS.

So much for sincerity, now for solidity. Our ateliers and designing schools may be false paradises in some respects—architectural convents, from which the novices come out shivering to find the world of fact quite different from what had been told them and subject to heart-breaking disillusion. We have to begin with a recognition of facts: how much has a century's talk about architecture advantaged Plymouth and Portsmouth, Leeds and Liverpool? If we could lift our eyes from our drawing-boards we should be filled with shame, for these towns are the measure of English building efficiency. Students should be taken out into the streets and be asked to see in the solid away from their paper phantasms. Later, they might be asked to have a travelling tour from, say, Wolverhampton to Wigan, and to report on what they saw, and to offer suggestions on what might be done. All along their eyes and minds should be directed to the improvement of the existing and be drawn away from the inspirational view of architecture and ghostly visions on white paper. On leaving the school some evening the students might be given sealed orders to bring next morning a description of the room they had been working in, and of the outside of the building. It would, I think, be an amazing revelation of the general lack of observation of the solid facts of building. Then the staple exercises should be of this nature:—Sketch and make suggestions for the improvement of the local railway station. Measure and re-design "Inglenook Villa." Critically examine the exterior of the Town Hall. How would you spend £500 on bettering the exterior of the new church? Survey and suggest improvements in the neighbouring street alignments. In London: visit Ludgate-circus and the junction of Tottenham Court-road with New Oxford Street and describe their architectural merits. Make propositions for minor improvements in Trafalgar-square and neighbouring buildings. Make some designs for suburban standard drain ventilators which shall be practical and utilitarian, but better than the ordinary ones, which look like lamp-posts with their heads knocked off. Which architectural ornaments in Regent-street do you prefer, if any? Make some observations on, and sketches of, any frontages in Piccadilly which you think suitable as examples of city buildings. Make a collection of studies of the best shop fronts you can find. This sort of thing would surely be more educational than designs for "a London Palace for a Nobleman" or for "a Casino on an Island in a Lake."

I have heard it argued that artificial flights, such as we are accustomed to in school subjects, bring out youthful enthusiasm; "you must touch the imagination you know." The truth is it has produced exactly what may be seen in Holborn and the Strand. Reasons may be given for any cause, and in fact the worst causes produce the cleverest arguments: it is quite dull to ask for mere common sense. Once a week or month the professor might have full classes out in the streets; in Edgware-road and Oxford-street there might be demonstrations—of both kinds!

Here it may be suggested that in many cases the making of notes of things seen is even better than sketching. Notes deal rather with general ideas, sketches with particular instances.

Such seeing with the eyes, I believe, would do very great good to students in many ways. For one, it would give material for joint work and discussion. As it is the schools are prone to doctrine without data, and are liable to become little Bethels of æsthetic sectarianism, full of sound and fury signifying very little.

Hand-practice and Differentiation.

In the architect's education there must be some amount of hand-practice with the common building materials. It is easy to switch this off into the joke that it is recommended that an architect should mix his mortar, then carry it in a hod up the ladder, and then build the wall all himself. Notwithstanding such humour as there may be in the notion, the student must be allowed to come into contact with other materials than the paper on which he designs his castles in the air. A short, intensive course of great value could easily be devised in a technical school, but also I should like co-education with workmen and builders for a time. Contacts have to be made with men as well as with stones and timber. Architects should have some relation to building education as a whole, and until vocational training in building, including the design of structures, is taken over by the State, the more that can be done to bridge the water-tight compartments the better. Some day I hope we may have a building college in a great craft university. We have to aim not only at the bettering of education for architects, but there must be a great heightening of skill all round. Besides such association, a way must be found to make promotion from the ranks possible.

At a time when privates by hundreds become high officers in the Army, it is absurd to think that executants of building work may never become directors of it. I say this, not because such promotion would be right and generous, but because it is necessary to bring new blood into architecture itself.

One of the ways in which I hope building practice may develop is that some young architects, through their more direct contact with materials and men, may be drawn to undertake work directly, supervising it throughout—that is, become builders again. As we go on, some recognised differentiation may well spring up between general practitioners and various kinds of specialists—town planners, constructors, and experts in old buildings. Such specialisation again might well lead to fruitful partnerships between men of different gifts and training. To those who live by it, architecture is a life. And we have to find ways to make this life most worth the living both to architects and the community.

Professor Lethaby's Articles.

We have received the following letter in reference to Professor Lethaby's articles, which, we may add, are to be reprinted in book form:—

SIR,—It is to be hoped that the articles which you are publishing by Professor Lethaby on "A National Architecture," will be reprinted later in book form, and an appendix added, throwing further light on the subject by giving drawings of some of Mr. Lethaby's suggestions, preferably made by his own hand. Further, may I, through your columns, commend to the attention of the authorities concerned, the idea of tacking on to one of the existing schools of buildings some experimental workshops for the purpose of trying out materials and methods of construction in which we are not thoroughly at home.

For example: A few years back, an English architect in New York was experimenting in modelled concrete. By using different substances for the matrix, he got wonderful effects of texture and the modelled and cast work was excellent in effect. His experiments tended to show that concrete work might be made extremely attractive, but of what materials the stuff was composed or what would be the strengths of his piers and lintels, I am quite unaware. This, however, might be worked out and reckoned up in a suitable workshop, when it would be necessary to keep specifications and data of all work done, for use in actual building operations. Or take roof coverings; for the last four years or so, acres of large roofs have been covered with new materials of various sorts which seem to have one quality in common—that they want a lot of humouring before they can be called watertight. It is probable that with a little modification these forms of covering might be made quite suitable for lightly constructed roofs over large spans, but at present the advantage of their use is a little doubtful.

The maintenance expenses of such a workshop would be fairly heavy. Whether any Government Department, County Council, professional body or private individual could be persuaded to supply this, is a matter for consideration.

It may be argued that it would be possible to try the properties of new materials on work in course of construction; but not every client is willing to allow his building to be used as an object lesson, or possibly, in case of failure of the experiment, as an awful warning, and the architect would be a bold man who suggested such a thing.

The proper place to carry out experiments as to the nature of materials is undoubtedly in experimental workshops and not on clients' private property.

The question of design is another matter altogether, and, as Mr. Lethaby indicates, every new building should be something of an experiment on the part of the designer.

ARTHUR BARTLETT,
Lieut., R.A.F., F.R.I.B.A.

MEETINGS.

FRIDAY, *December* 20.

Royal Institute of British Architects.—Mr. L. B. Beale, Timber Commissioner for Government of British Columbia, on "British Columbia Woods available for the Work of Reconstruction." 4 p.m.

Egypt Exploration Fund (*Royal Society, Burlington House*).—Dr. A. M. Blackman on "The Pre-Dynastic Period and the Old Kingdom." 4 p.m.

War Memorials.

An Advisory Committee has been appointed for the diocese of Southwark to assist the ecclesiastical authorities in relation to war memorials. It is felt that regrettable mistakes in the shape of hastily-considered schemes and indifferent designs may be avoided if the guidance and help of the Advisory Committee can be given. It is hoped that one united scheme will be adopted, rather than a number of smaller and separate memorials, and the committee hope to prevent the erection of brass plates and other fixtures. In old churches there is considered to be ample scope for replacing the original altars, screens, fonts, and crosses, or for carrying out necessary works of repair and restoration.

THE REBUILDING OF ATHENS.

On Friday, December 13, under the auspices of the Anglo-Hellenic League, Mr. T. H. Mawson (City Planning Expert to the Greek Government) gave a lecture at King's College on "The Rebuilding of Athens."

Sir T. G. Jackson, R.A., in introducing the lecturer, said that happily Athens had not suffered like many of the cities of Belgium and France, and of course there was no question of restoring the Parthenon or the Erechtheum. He believed, however, Mr. Mawson would show there was a great need for the removal of unsightly and unwholesome buildings and for the enlargement of the town on proper lines.

Mr. Mawson said he had to deal in one lecture with a subject about which whole libraries had been already written and about which further libraries would be written before it was fully or even partially exhausted. The problems which the city planner of Athens must solve were at once unique in their importance, their interest and their prospective possibilities. They were unique in the respect also that any failure, whether through lack of foresight or courage in the development of the city plan, or of want of appreciation for the archaeological treasures handed down from past ages, would bring upon the planner the hearty condemnation of every lover of thens, and rightly so, for the city of all cities called for reverent handling. It was the field from which all classic learning had sprung, and for this reason every scholar the world over rightly considered that he had a vested interest in it, which he must guard with the utmost jealousy. The ancient Confederacy of Greece consisted of a number of small States, or, rather, towns, each having a certain ideal which they were continually striving to express in fine ways, and also certain traditions and glories of its own. In this connection we were still reminded of the surpassing excellence of the Parthenon and other architectural treasures erected on the Acropolis and elsewhere, which were still the marvel of the ages. The more he looked at the drawing made by a pupil of the Ecole des Beaux Arts in Paris of the Acropolis, crowned by its masterpiece as it appeared at the time of the Turkish invasion, the more he admired the skill of the Greeks, which, as it seemed to him, was infinitely greater than that of the Romans. The difference, as he saw it, was this—the Greeks realised that the noble hill rising out of the flat plain must be the dominating factor in the composition. Therefore their great architects first drew in the hill itself, and then began the work of suitably crowning by art that which Nature had so nobly begun. There was no attempt at perfect symmetry, balance, or even alignment. The whole was built up as a composition in which Nature was conductor, and art the first fiddle. The Romans acted far otherwise, for art with them was both conductor and orchestra. The Greeks belonged to the school of Nature and the Romans to the school of the tee-square and compass. Before giving the reasons which made imperative the replanning of Athens they must realise something of the extent, importance and surprising beauty of its architectural remains. There were two Athens to-day—the ancient and the modern. The oldest houses were erected not more than eighty years ago, and there were only a few Byzantine churches and one or two Turkish mosques that mark the intervening decades.

The lecturer proceeded to give a series of slides showing, first, the Port of Piraeus, Phaleron, the intervening landscape, and then the ancient remains of the city. He pointed out various streets which it is suggested should be widened, and districts where poor property should be demolished and boulevards and parks formed, all of which improvements will open up views of the famous buildings. For instance, the scores of small houses at the base of the hill in front of the Temple of Theseus will be cleared away; the Rue de Kiffessia will be widened, and the Temple of the Winds will form the central note in a fine street perspective; whilst the beautiful monument of Lysicrates will occupy the centre of a large square and have the support of four cypress trees. Following the ancient monuments, Mr. Mawson exhibited slides of the principal modern buildings of the city, and said he could imagine many of his hearers saying, what a pity it was that Athens had to be remodelled. Unfortunately it was the modern part of the city which needed the most drastic remodelling in order to make it what an up-to-date city ought to be—convenient and spacious in plan, coherent in grouping, majestic externally, and impressive in its unity of character and purpose.

The broad answer to the question as to why Athens was to be replanned was that it is essential owing to the phenomenal annual increase in its population The city was teeming full, and there was evident congestion in many parts of it. To this rapidly increasing population there was the constantly augmented stream of wealthy tourists from all parts of the world, for which at present adequate accommodation could not be provided. Above all was the dominating fact that Greece, encouraged by its victories in the late Balkan War, and by recent still greater victories, was emerging from centuries of lethargy and pessimism into activity and optimism. Increased Parliamentary representation had made possible and desirable a more imposing Parliament building and Government buildings on an entirely new site. The municipality was prepared to erect a city hall, law courts and markets, whilst the merchants contemplated a new exchange. Other factors which were contributing to the remodelling of the city was the growing importance of the Piraeus as a trans-Continental overland port, which, with the proposed railway extension from Salonika, would become the overland route to India. The paramount reason, however, calling for a complete city plan for Athens was the great desire and need felt for a boulevard, park and playground system which would be commensurate with the requirements of the city and be the expression of the spacious dignity of a metropolis. The need for shade was apparent everywhere, and therefore, in addition to the park and boulevard system, a comprehensive scheme of re-afforestation was taking place on the outskirts of the city. These extended over vast areas, especially on the higher ground behind the Stadium. There would be numerous small public plots with an abundance of trees and a fountain, and a number of large open plazas, where, in addition to trees, there would be grass, bright flowers and noble statuary.

One of the most interesting slides exhibited by the lecturer was that showing the areas allocated to different purposes. It showed all the trunk railway stations brought to one strategic centre, thus ensuring economy of working and permitting of a plan in the grand manner. Workshops and factories are brought into relation with the railway sidings, and these will be provided with electric energy generated at a power station about a mile and a-half away. In this way the smoke nuisance will be eliminated. Dealing with the workmen's area Mr. Mawson said the planning of the houses for the workmen was a delightful problem, for the conditions were altogether different from those in this country. In Athens it was shade that was required, whereas in England they required all the sun which could be got. In Athens a great number of the women had occupations, and the houses had to be built on the most economical lines, so far as service was concerned. The idea was to build groups of self-contained flats around a great court, and next the road would be a beautiful vine-covered pergola. It was hoped the rents would not exceed 10s. a week for a flat with two bedrooms, living room, scullery, pantry and so on. They would get seventy-two residences on a plot of about eight acres of land, with a great garden with shading trees at the back where the children could play. Other slides shown were the Government centre, the palace extension, and the site of the new collegiate schools. In conclusion, the lecturer said the question would be asked: how such a vast scheme was to be paid for? If Athens was as rich as one of the Lancashire towns he would utterly despair of anything being accomplished, but because the Athenians were poor they would accomplish all he had suggested and more, and they would first solve the practical problems of design on paper in a true, scientific, and aesthetic manner, and then, if necessary, take fifty or a hundred years to accomplish their object.

The Chairman said the scheme was so vast that it was difficult for one like himself who had not visited the city to know how far it would extend. Mr. Mawson began by depreciating Roman architecture, but they ought to bear in mind that it was devised for a very different purpose to the old monuments of Greece. The Romans had to provide for conditions unknown to the little republics of Greece. They had to provide for an enormous empire and great industries, and for the machinery of government, all of which were beyond anything the Greeks had thought of, and therefore Roman architecture was to a certain extent obliged to introduce the utilitarian note. From one point of view that might be held to place it below the Greek style, but on the other hand they must admit it was a fine style, and it had originality. He had always felt that Roman architecture had been unduly depreciated. He hoped that some of the Byzantine churches would come in the way of the widening schemes which had been suggested. It was only in recent years that the Byzantine architecture in Greece had been studied; for generations back people thought only of such buildings as the Parthenon and were apt to look on the Byzantine monuments as barbarous work. He was much pleased with some of the illustrations of modern Greek buildings, the designers of which appeared to have considered not only the conditions of climate and of materials, but also the older Greek style without imitating it.

M. Joannes Gennadius (Greek Minister), in proposing a vote of thanks to the lecturer, said any artist or architect would envy the position in which Mr. Mawson found himself in having to deal with two cities so historic and beautiful as Athens and Salonika The great merit of Mr. Mawson's planning was that not only would it preserve the ancient Greek and Byzantine monuments, but it would render them much more visible. The only thing was that the scheme was so vast that many of them could only contemplate it as a thing to be realised many years after they had passed away. At the same time it was pleasant to think that one day Athens would be as magnificent and beautiful as Mr. Mawson had shown them that night

Mr. Mawson, in reply, said it was true many of them would not live to see accomplished what was suggested, but in town planning they were laying down a policy of development not in the next five or ten years, but in the next fifty or one hundred years. In the meantime, having had the vision, as the people of Athens had, of what the city might be, and some day must be, every architect, engineer, sculptor, and landscape gardener would work with zest to attain the end.

THE ESTATE MARKET.

TWELVE farms, with a total area of over 3,200 acres, in Yorkshire and Staffordshire, belonging to Lord Cathcart, are to be offered for sale by Mr. Joseph Stower in two portions, 1,790 acres at Doncaster, in January, and 1,420 acres at Derby, in March. Outlying portions of Sir Hamilton Hulse's New Forest estate of Breamore are also to be sold early next year.

South Hall, Basingstoke, with 44 acres, a Georgian house, has been sold, before the auction, by Messrs. Edwin Fear and Walker. Another Georgian house, in Sussex, Heathfield Park, with nearly 840 acres, has been privately sold by Messrs. Hampton & Sons and Messrs. Powell & Co.

A few auctions have been arranged for early dates at Winchester House, including a block of freehold and leasehold corner shops, opposite Victoria Station, by Messrs. Rogers, Chapman & Thomas, on January 14, and an Adam mansion in Portman-square, by Messrs. Trollope, on the following day. Messrs. Ventom, Cooper & Co.'s list for January 28 includes five freehold shops, with flats above them, at Margate.

FUEL ECONOMY IN PRIVATE HOUSEHOLDS.*

By A. H. BARKER, B.A., B.Sc., Wh.Sc.

Lecturer in Heating and Ventilating Engineering, University College.

THE result of using coke of this character on an open fire is that in a few hours the fire gets completely choked up with incombustible matter, and therefore, becomes dead and lifeless and gradually dies out, although there is apparently plenty of fuel on the fire. In order to revive the fire it is necessary to rake out the greater part of it, leaving only a small portion of the glowing cinders to light up again with coal and perhaps some wood, and to start afresh and clear away the hideous accumulation of brownish dust which collects in the fire-grate. The dust is of a peculiarly light character, and any attempt to remove it results in the whole of the room being smothered with dust.

The public should also be warned that the relative dryness of the coke which is used is a very important point. Coke is much more bulky than is a similar weight of coal, and, for some reason which is very difficult to understand, the public have got the impression that coke can be safely left stacked in a heap in the open air. People would not dream of leaving their coal stacked in the open air. They would be careful to put the coal in their cellars, but coke is regarded as suitable material to be dumped in a corner of an open yard and drawn on as required.

There could not be a greater mistake. Coke is, in fact, very much more absorbent of water than coal. If you take a heap of dry coke and pour over it a quarter of its weight of water, the whole of the water will be apparently absorbed. When this coke is put on a fire, the first effect of the heat is to evaporate the moisture in the coke, and this absorbs an enormous quantity of heat, which is carried straight up the chimney in the form of vapour. The water reduces the temperature of the combustion and so diminishes the radiant effect.

Further, in buying coke, as I have already pointed out, the purchaser is at the mercy of the supplier. We all know that this coke is in the yards of the supplying companies stacked up in heaps exposed to the open air, which means that every shower of rain that falls upon it is absorbed. If the coke is sold by weight the purchaser is buying this water soaked into the coke, at the same price as if it were coke. Not only is this water, of course, worthless to him, but it is worse than worthless because its removal costs a considerable percentage of the heat in the coke itself. Thus, if one pound of coke contains 20 per cent. of water, and if the original value of the coke is 12,000, it is clear that the value of the material as bought is only 9,600; and of that 9,600 about 5 per cent. will be required to dry off the water.

If, in addition to the water, the coke contains some 25 per cent. of ash, it will be seen that the net value of the coke to the consumer is only some 7,000 heat units per pound. I have taken, of course an extreme case, but this extreme case is by no means unknown. All coke, more or less, suffers from the same disability.

* Continued from page 402, December 13.

The experiments of Mrs. Fishenden show that when coke is good and dry, it has, in fact, a slightly greater efficiency than has coal when used in an open fire; and by efficiency, of course, I mean the proportion of the total heat in the fuel which goes out into the room as radiant heat.

The practical outcome of this is for the householder to arrange for his coke to be dried before it is put on the fire, so far as it is possible. Coke should always be kept in a dry place. Rain should never be allowed to fall on it. It is very advisable previous to using coke in a kitchen range, for instance, that the whole of the next day's supply should be stacked on the hot-plate of the range, and allowed to remain there the whole night so as thoroughly to dry the coke before it is used. This, of course, makes a hideous mess, and it is one of the disadvantages of using coke that its use does make a hideous mess.

Even so, a great many kitchen ranges will not heat adequately with coke as fuel, for reasons which I explained in the course of lectures which I gave at the beginning of the present year on "Fuel Economy in Cooking Apparatus," † which I venture to recommend all persons interested in this matter to consider.

It behoves us to consider these remarks very carefully in order to determine what are the maximum possibilities of solid fuel burnt in an ordinary open grate, and what are the conditions which are favourable to economy and the opposite. What, then, are the chief causes of the loss of heat from an open fire. It is evident from our experiments that when the chimney flue is wide open and there is no restriction whatever on the rate at which the fire will burn, there is a loss which may reach as high as 60 per cent. of the total heat in the fuel passing up the chimney flue. Not all of this is actually lost because some of it is caught by the brickwork and serves to warm the house generally. The greater portion of it, however, is lost.

Now the greater portion of the air which goes up the chimney has not served to produce combustion in the fire, but it is drawn out of the room by the suction in the chimney and goes up the throat of the chimney without passing through the fire and so serves to dilute the products of combustion.

The difficulty of the problem from a scientific point of view is that some of this heat has already been introduced into the room in the form of radiant heat impinging on some of the furniture and ultimately finding its way into the air, which air is drawn up the chimney and is thrown out.

One of the principal ways, therefore, of reducing the loss of heat due to an open fire directly and indirectly is to prevent such a tremendous draught going up the chimney. That is, by having a damper, or a register, or a slab of fireclay, or some other device in the flue, which shall be closed when a decrease in the amount of ventilation is possible or desirable.

It must be observed, however, that this process does not in any way increase the efficiency of the fire. The efficiency of the fire is the same; that is, the proportion of the total heat in the coal issuing as radiant heat, whether the fire is burning slowly or rapidly. What is done by throttling the flue is to prevent so much warm air from the room being thrown away and so much cold air being introduced into the room. In this connection one must draw attention to statements purporting to have been made by the Coal Controller's staff to the effect that the throttling of the chimney flue adds to the efficiency. This is directly contrary to the fact. It does not add to the efficiency, although it reduces the combustion and reduces the losses of heat from the room.

A diagram which I have prepared shows how the heat from an open fire varies during the stoking period. In this experiment 2½ lb. of coal were fed on to the fire at the end of every hour, and careful observations were taken of the heat emitted by the fire during the whole period. Another diagram shows how the heat varied when all the coal was stoked on to the fire at one time.

The difference between these two is very striking. On the whole, however, it was found that the total amount of heat delivered into the room as radiant heat was independent of the manner of stoking. On one occasion a small quantity—about ¼ lb.—of fuel was fed on to the fire every six minutes. The same result was observed, that the total amount of heat given to the room was independent of the method of stoking, and depended only on the amount of coal burnt.

It is an important question, too, how the radiant heat from the fire is distributed in a room space. I have made a very large number of experiments on this point. It is obvious that if a powerful beam of heat passes up over the head of any person sitting in the room, that heat is very largely wasted. It may have the effect of warming the ceiling of the room, in which case much of the heat is lost to the room over. This, of course, is an advantage inasmuch as it helps to warm the room over. But this heat is of no service for warming the room itself.

The heat which passes to the ceiling has a detrimental effect in that it causes the temperature to tend to be higher at head level than at foot level, which is directly contrary to one of the main advantages of the use of radiant heat. The best way in which to use radiant heat is to throw it downwards. It is the only way, indeed, in which the floor of a room can be heated to a temperature equal to or higher than the upper part, and any radiant heat distributed in the best manner has this effect.

As to the distribution of heat from an ordinary coal fire, the rate varies a good deal according to the type of fire.

I cannot now discuss the very intricate problems of heat interchange which arise in connection with the heating of a room by radiant heat. I can only explain some of the principal conclusions arrived at during this series of experiments.

(*To be continued.*)

† Published by the *Builder*, price 1s. 6d.

THE BUILDING TRADE.

RECONSTRUCTION.

Raw Materials, Employment, &c.

THE Ministry of Reconstruction have issued two more of their useful little pamphlets on Reconstruction problems, *i.e.*, "Raw Materials and Employment" (No. 6) and "Guide to Work and Benefits for Soldiers and Civil War Workers" (No. 7). The guide to work gives advice on "How to Get a Job" to both men from the Forces and civilian workers, benefits (*i.e.*, gratuities, out-of-work donation, &c.), and much other information of use to men and women at the present time. It is stated that the Government intend to introduce a Bill to deal with the case of apprenticeships interrupted by war service. It is proposed that State assistance shall be given to apprentices whose apprenticeship has been interrupted by war service where in the industry concerned a scheme of training has been approved by the Minister of Labour. Where, in the opinion of the Minister of Labour, it is desirable that an apprentice should receive whole-time training in a technical school, a maintenance grant will be paid for a specified period in lieu of the State assistance laid down above. We also learn that the Military Service (Civil Liabilities) Department, with an advisory committee, will be continued in existence after the termination of the war, so that financial assistance subsequent to demobilisation may be given in accordance with a scheme based on the existing regulations of this Department.

Peace Production and Priorities.

The pamphlet on raw materials and employment deals with matters of great importance, and on the whole in a satisfactory and convincing way. No one can foresee exactly what the situation will be for some months to come, but estimates of our probable needs are discussed. Raw material which is not imported into the United Kingdom, such as brick and cement, does not constitute a problem of special difficulty, as we shall soon have sufficient labour to put into our home production; but with imported raw material it is different, though the situation is not so difficult as it was expected to be. The supply of materials is not likely to be seriously deficient, even in regard to those industries for which it will fall short of the normal supply, and what is needed is careful supervision, to avoid waste rather than any drastic measures of Government control. The industries which now have less labour than they had in July, 1914, are those which need imported raw material. The building industry, for example, has about 460,000 fewer men, and there will be work for the men if we have the raw material.

With regard to the supplies of material for the metal trades, the Minister of Reconstruction spoke as follows in the House of Commons on November 12:—

". . . There has been a great increase in our capacity for the utilisation of home ore, and arrangements are being made by the Shipping Controller which will render it possible to import as large a quantity of foreign ore as was imported prior to the war. It is proposed to release iron and steel forthwith. The difficulties which may arise owing to the fact that through the exigencies of war the price of steel now stands at an artificial level have not been overlooked, and it is intended to continue orders fixing for a period a maximum price for steel, though this may involve continuing some measure of Government assistance for that period.

"With regard to other metals, I am glad to be able to assure the House that there is a sufficient supply available to render it possible to release some from control now, and nearly all the rest within six months. I am convinced, after a close survey of the position, that we shall be able to meet the demands which reconstruction will make on our resources. But while I am satisfied that there will be enough for all if it is equitably divided, there must be no selfish attempts on the part of individuals to secure more than their share, and for this purpose it may be necessary to take precautions against hoarding."

Timber.

In considering the question of the timber shortage, it is stated that:—

"The housing programme for after the war depends partly upon the supplies of timber; and, of course, the building trade cannot resume its full activities until we have timber enough in the United Kingdom. . . . We should need about 100,000 standards of timber a month, without regard to pit-props and other uses for wood. We have now on hand only enough for three months' use under peace conditions. The supply depends upon shipping, and this may very well be available; but we have to be on the look-out to secure what timber can be had. In Sweden and Finland there are about 2,000,000 standards; and some 600,000 standards are sawn and ready for shipment from Canada, Mexico and Scandinavia."

The Minister of Reconstruction, in the speech already referred to, said:—

"The position as regards timber is difficult. It is bulky, and our tonnage has to be economised; but, apart from this, there is little doubt that events in Russia, which has so far been our largest source of supply, will seriously affect the situation. Arrangements are in hand to provide supplies from overseas, but it is clear that continued felling will be necessary at home for some time to come, and with this need in view woods have been purchased ahead by the Timber Supplies Department."

Control.

The whole question is affected by the situation outside the United Kingdom, as the sources of our supply of raw material are, in many instances, the same as the sources of supply of other countries, and, we are told, "to leave the situation uncontrolled might be disastrous Of course, there may be enough material to go round, it may be that no one will try to 'corner' supplies; and it may be that prices will not rise rapidly as a result of competitive buying. But we cannot rely upon merchants loving one another; still less can we rely on their loving the manufacturers. Therefore, without being unduly suspicious, we may have to make preparations for supervision and control of the supplies of raw material on an international scale."

While we should like to see control abolished at once we believe that most people will be satisfied that the measure of control intended is probably necessary. We are promised that the Government will hasten the importation of material, in order to shorten the period of demobilisation, and control will be gradually relaxed as supplies become more adequate.

In view of the danger of unemployment, special consideration will be given to those trades which give employment to a large number of persons, and cotton, we are told, may have to take precedence of timber. And secondly, if great numbers are employed in any trade on raw material which does not take up much tonnage, some preference should be given to such raw material. "The principle, therefore, according to which we must allocate our tonnage for imports of raw material must involve a consideration of employment. But the problem cannot be solved by simply counting the number employed in one industry, since the raw material for one industry may set going many other subordinate trades. From this point of view timber may be more important than cotton, if the building trades can set going all dependent trades such as furnishing, sanitary engineering, and the rest."

As our readers are aware, a Standing Council for Post-War Priorities has been established, and this Council will report to the Cabinet Committee on Post-War Priorities, which will be the final authority for the distribution and allocation of raw material and other matters affecting the change-over from war work to peace production, "and it will naturally see that the needs of the State take precedence of the requirements of industry; for example, in the case of material for building."

The central direction of all control departments now lies with the newly constituted Standing Council, which meets at the Ministry of Reconstruction, 2, Queen Anne's Gate-buildings, S.W. 1. This Council, which is responsible to the Committee of Cabinet Ministers (with offices at 11, Pall Mall, S.W. 1), will be charged with the decision of all questions relating to the priority and the allocation of materials in the reconstruction period, and will determine whether, in any given material control is necessary, and, if so, to what extent and in what form. "It is hoped that such control as may be necessary may be gradually more and more devolved upon organisations representing the trades concerned. At present it is arranged that the Control Authorities which have, during the war, controlled particular materials should 'carry on' under a general instruction that applications for materials should be considered by them sympathetically and upon a new basis. The Standing Council has been in almost daily session since it was formed, but it is obvious that an estimate, both of the requirement and supply of materials, can only be formed after a very wide and careful survey. . . .

"The industries themselves will provide organisations for advising on the demand for material among the firms concerned. There will, therefore, be *Trade Organisations*—Industrial Councils or Committees in each industry—whose advice will be sought by the Government when the controlling authorities are considering the needs of this or that trade. . . .

"If the industries are prepared to say what material they need and what number they can employ, the organisation we have briefly described will be able to set to work in the early days of peace; and it is hoped that the procedure will be of the following kind:—The industries should each have some fully representative organisation which will put before the Government, among other things, the need for raw material. Presumably, a Joint Industrial Council will have a Committee to consider this need, and special Committees will be set up in those industries in which no Joint Industrial Council exists. It will be for the industries to arrange the composition of the Committees, but most of those so far set up and recognised by the Government are joint Committees, containing both labour representatives and representatives of the employers. . . . The Government has accepted the recommendations of the Whitley Committee in regard to Joint Industrial Councils, and the Ministry of Labour has been able to promote organisation in many industries. The Ministry of Reconstruction, meanwhile, has brought into existence various joint Committees known as Interim Industrial Reconstruction Committees. All such bodies, therefore, will naturally give attention to raw material supply. . . ."

Representative joint Committees of the different trades will have as their first task to collect from the firms or associations concerned information as to the amount of labour they can employ, the rapidity with which their machinery can be set going on "peace" production, and the amount of raw material they could use on this machinery. If the full amount cannot be supplied at once, the responsible organisation representing the industry may have to allocate a proportion to the different firms.

"If we suppose, then, that the trades have made a review of their needs, and have indicated to the Ministry of Labour the number of persons they can employ and the rate at which new employees can be taken on, the representative Committee then passes on to the Standing Council the statement of the requirements of the

industry for raw material. The Standing Council will have to adjust the claims of the different industries. The members of that Council will be informed of the supplies available and, presumably, of any questions of general policy which will affect the raw material supply. It is contemplated that there shall be an Imperial Board to consider, in relation to the problems of the Standing Council, the supplies obtainable within the Empire. . . .

"It will be the task of the Standing Council not only to allocate as much raw material as can be carried between the different industries, but also to see that there is an organisation for arranging for the distribution of the material within each industry which needs to be rationed. Thus, as far as possible, advice on the need for supplies will be sought from representatives of the industries. The principle of control where control exists will be quite different from the war-time control by the State, for the State, in time of war, is buyer and user of most of the commodities controlled; but as soon as peace is secured, private purchase and private use will begin again to dominate the markets.

"It is, therefore, essential that the control should not be from above, but should be exercised by those immediately concerned in industry; and further, obviously fewer materials will need to be controlled in proportion as we return to normal life. The findings of the Standing Council will be put before the Cabinet Committee for post-war priorities, and this Cabinet Committee will have the duty of finally deciding the proportion of tonnage to be allotted to the different imported raw materials. It is to be hoped that in the case of most of the raw materials the need for this allocation will pass very soon after peace is secured. . . ."

PROVIDENT INSTITUTION OF BUILDERS' FOREMEN AND CLERKS OF WORKS.

ANNUAL DINNER.

THE thirty-fourth annual dinner of this Institution was held on Saturday at the Connaught Rooms, Great Queen-street. Mr. George Mowlem Burt, the President, was in the chair, and there was a large gathering.

Following the usual loyal and patriotic toasts, which were received with the customary enthusiasm—

The chairman, in giving the toast of the evening, "Prosperity to the Provident Institution of Builders' Foremen and Clerks of Works," said that at the time he was elected President, it was felt that, although the dinner was the only opportunity that the Council had of putting the claims of the Institution before the public, it would not be possible to hold it this year. Fortunately, since then, national affairs had taken a decidedly more favourable turn and it was decided to hold the victory dinner. As many of them were aware the Institution was founded in 1842, to provide pensions for builders' foremen and clerks of works, and their widows and orphans who might be in distressed circumstances. To give them some idea of the extent of the beneficence of the Institution, he might tell them that since that date nearly £22,000 had been paid away in pensions. Like all old-established charities that Institution had been hard hit by the war, and, unfortunately, last year the Committee found it necessary to reduce the amount of the pensions; but, despite that reduction, they had great difficulty in making both ends meet. He was glad to say that this year things had improved somewhat and at the next meeting the Committee would be able to recommend that the pensions should be restored to their old amounts. In spite of many appeals for war charities, which must necessarily come first, he was pleased to say that they had met with a very generous response to their appeal this year, and they had been able to collect £645. That broke the record, the next largest amount being in 1906 when the appeal realised £606. The need for increased help was still very urgent, for, as he had told them, the Committee hoped to reinstate the pensions at their old amount, and if possible they would like to increase them. The good that such an Institution as that did, could not be exaggerated and he could only hope that by the close of the year the finance would have greatly improved, and that at the dinner next year another record collection would be announced.

Mr. F. J. Dexter, in responding to the toast, remarked that the Committee had only been able to carry on the Institution during the last four years with a good deal of anxiety. A great majority of the members had been engaged on work of national importance in superintending the erection of aerodromes, the building of munition factories; while some had joined the Forces. In that respect they had a record of which they might well feel proud. The members were now looking forward to taking their part in the great work of reconstruction which lay ahead of the country. As far as the Committee were concerned, they were pleased to give their time to administering the affairs of the Institution, and they hoped to retain the confidence which had always been given them, not only by the members but by builders and architects more especially.

Mr. F. G. Minter, in giving the toast of "The Architects and Surveyors," said they must all work together for the common good of the profession. He knew that architects and surveyors had been very badly hit by the war, but they had borne their troubles cheerfully and uncomplainingly; in fact, he knew of no profession that had exhibited more backbone during the past trying four-and-a-half years. Regarding the future, he (Mr. Minter) was an optimist. He believed that the war had broadened the outlook of architects a great deal and he hoped there would not be so much pettiness brought into the business as there had been in the past. He hoped that the specifications would be made much shorter and the contracts made bigger. They had got to recognise that the men were out for a good wage, and they could only pay that if architects would help them in the matter of prices. He believed that there would be so many good buildings put up in the near future that it would not be necessary for architects to "cut" prices, as some of them had done in the past. Builders must depend upon architects and surveyors to see that the prices were right before they started on a job, and he was convinced that the more they trusted the builders the more they, in their turn, would do for them.

Mr. William Woodward, F.R.I.B.A., in responding, said it was quite true, as Mr Minter had remarked, that architects had suffered keenly during the war. That was greatly due to the absurd order that no builder or architect must execute any work exceeding a cost of £500 without obtaining a permit. That order, to his mind, had worked havoc among the architects and builders of London especially. They had, however, borne the embargo cheerfully, but now that the war was over he hoped they would insist upon its speedy removal. Architects wished to get rid of the bureaucratic control of Whitehall and to resume their independent functions once more. The question of bureaucracy was a very important one to Englishmen; it was increasing to an alarming extent, and if they did not arouse themselves to resist it, he was afraid that they would see set up a series of new Government Departments which would take within its walls hundreds of thousands of men to the exclusion of those independent men who had practised in the past. In particular they would need to watch very carefully what the Government intended to do in connection with the hundreds and thousands of houses for the working classes which were going to be put up—they must see to it that the independent architect was not ruled out.

Mr. H. J. Chidgey responded to the toast on behalf of the surveyors and remarked that as in the past so in the future they would do their best to hold the balance even between the architects on the one side and the builders on the other.

Mr. W. Woodward, in proposing the toast of "The Builders and Contractors," said he had worked with builders and contractors for over half a century, and although he had looked after the interests of his clients as well as any architect in London, he had never had a quarrel with a builder or a contractor Although occasionally they had had their differences during the progress of the works, they had always settled them amicably. All he asked builders and contractors to do in the future was to keep their eyes open to preserve private enterprise.

Mr. Ernest J. Brown, Past-President of the London Master Builders' Association, responded to the toast. He said that during the years he had been in business working for the builders and contractors of London he had learned to respect and honour them in exactly the same way as he had respected and honoured the operatives and the clerks of works, and indeed everyone connected with the building trade. Mr. Woodward had referred to the abrogation of the £500 building limit. He (Mr. Brown) was afraid that unless something was done in the way of rationing building materials in this country during the period of reconstruction they would find that there would be the most unholy scramble for materials, and the rich man who could afford to pay what he liked for his building would be at an advantage over the poor man. He was afraid they must put up with rationing for a time.

Mr Woodward said he agreed that they must have priority.

Mr. Brown said he was a member of the Committee on Reconstruction, and along with him were other representatives who would guard the interests of the building trade to the utmost of their ability. That was the first time the Government had allowed the building industry to take care of itself and to appoint gentlemen to represent it. Ever since the war they had tried to be allowed to carry on their work as builders in their own way with Government interference. They had not succeeded and the consequence had been that enormous works had been placed absolutely without any regard to their cost and an enormous amount of money had been thrown away because builders had not been allowed to carry on their business in their own way.

The remaining toasts were "The Governors, Trustees, Donors, Subcribers and Visitors," proposed by Mr. Alex Ritchie, J.P., and responded to by Mr. H. W. Horner, a trustee of the Institution, and Mr. Ronald Chessum, and "The Chairman," proposed by Mr. Woodward.

LONDON MASTER BUILDERS' AND AIRCRAFT INDUSTRIES' ASSOCIATION.

The forty-seventh annual general meeting of the London Master Builders' and Aircraft Industries' Association was held at No. 48, Bedford-square, London, W.C. 1, on Thursday, the 5th inst., when the Executive Council submitted the annual report, from which we take the following:—

State of the Building Trade.

Owing to the Government requirements, men remaining in the building trade during the period since the half-yearly meeting were fully employed, there still being a great shortage of labour. Private building work has remained greatly curtailed, Government work still being distributed in the same restricted channel as before. Your Special Committee appointed to deal with trade matters after the war submitted its report to the Building Materials Supply Committee of the Ministry of Reconstruction.

This Committee, in summarising the views expressed by this Association, says: "The London Master Builders' and Aircraft Industries' Association, who are affiliated to the National Federation of Building Trades Employers, were separately represented before us, and submitted a report of their committee on trade matters after the war, which was subsequently submitted to and approved by the National Federation. In view of the fact that the Master Builders may be said to form the heart of the industry we attach the greatest importance to the views

expressed by them, and their report bears evidence of careful thought and well-balanced reasoning." . . .

The Day-work Schedule has been revised to date, and will be published in the Handbook for 1919, and members are urged to make use of this schedule. It is suggested that acceptance of any rates lower than those set out is contrary to the spirit of mutual support necessary for the good of the Association; and further, it may be urged that the Trade Unions do not permit their members to work for a lesser rate than has been agreed.

Relations with the Workmen.

Shortly after the commencement of the latter half of the year a claim for a further advance was made, and although not granted to its full extent, an Award was made by the Committee on Production on July 27, whereby men engaged on munitions work should receive an advance of 1½d. per hour, and this Award was shortly afterwards, by the decision of members at a Special General Meeting, extended to workmen engaged on general work. All members have been kept informed of the continual alterations; and also from time to time have been urged as to the necessity of taking precaution against rises in rates of wages or cost of materials.

The better feeling and closer understanding existing between employers and operatives referred to in the last annual report continues to make progress, and the Industrial Council for the building industry has commenced its operations, three meetings having been held, which were attended by members of your Association, it being one of the Regional Federations comprised in the scheme. Members of your Association have also been appointed upon the Local Advisory Committees connected with the Employment Exchanges, and periodical meetings are held.

The Ministry of Labour has decided to adopt the scheme put forward by the Industrial Council Resettlement Committee of the Building Trade for the release of "pivotal" men which entrusts the Local Advisory Committees with the duties in connection therewith; each Local Advisory Committee will have received full instructions, and members are recommended to apply to their Local Advisory Committee in all cases where they are urgently in need of the services of workmen who legitimately come under the category of "pivotal." . .

Organization.

During the year a considerable number of new members has been enrolled, and it is beyond doubt that employers are generally recognising the vital necessity of united action by all parties interested in the various branches of our industry. The appointment of a capable organiser has recently been completed, and his services will include, besides the development of membership, that of negotiation with Government Departments, and Public Bodies in connection with all matters of interest in the building trade. It is again urged that any member having a difficulty affecting the principles of the trade in any way, whether with Government Departments, architects, building owners, or operatives, should, before taking any action, consult the Association. . . .

During the year 22 meetings of the Council have been held, which with those committees, conciliation boards, conferences, &c., make the large total of 119.

The following officers were elected at the meeting for the year 1919:—

President: Mr. W. J. Renshaw.

Senior Vice-President: Mr. S. J. Dicksee (Messrs. Foster & Dicksee, Ltd.).

Junior Vice-President: Mr. F. J. Gayer (Messrs. E. A. Roome & Co.).

Treasurer: Mr. G. M. Burt (Messrs. John Mowlem & Co., Ltd.): and the following new members of the Council for the ensuing year: Mr. Percy C. Culver (Messrs. Wm. Harbrow, Ltd.), Mr S. Gluckstein (Messrs. Povis, Ltd.), Mr. John F. Greenwood (Messrs. John Greenwood, Ltd), Mr. J. Gurney Nutting (Messrs. J. Gurney Nutting & Co.), Mr. J. A. Pettit (Messrs. Brand, Pettit & Co.)

Mr. H. W. Wagstaff (Messrs. W. H. Wagstaff & Sons) was elected Hon. Auditor.

DEMOBILISATION AND RECONSTRUCTION.

WE take the following from a lecture delivered at G.H.Q., the object of which was to communicate the principles upon which the Government has decided to carry out demobilisation:—

In general, the principle on which the Government has decided to carry out demobilisation is "Demobilisation by individuals in accordance with trade requirements, and not by units in accordance with military requirements"; in other words, it is primarily the economic future of the individual soldier that will be consulted. The release, then, of men from the Army will be governed largely by the ability of industry to absorb them. And here a very pertinent question arises. "Will industry be able to absorb us all? And will the process be very slow?" We know something about the slowness of leave allotments. Is there any hope of industry reviving quickly, or must we envisage the prospect of inflicting ourselves for an indefinite period on the long-suffering French. I shall refer in a moment to certain considerations which will delay demobilisation. I have, however, the authority of the Minister of Labour for saying that there is every prospect of a speedy and marked boom in industry which will continue for a number of years. The Labour Minister has been advised in this respect by a committee of expert economists, who have made a careful study of the main industries of the country, and have come to the conclusion that there will be such a rise in the volume of trade soon after the cessation of hostilities, that not only will there be work for all the men in the country and the men in the armies, but that it will be possible to absorb also those of the women of the country who have entered the field of industry under the abnormal conditions of the war, and who desire to continue in it.

Demobilisation will necessarily be a slow process and there are four considerations which will militate against any great rapidity in the operation:—

1. The transformation of factories, &c., from war to peace conditions. This will inevitably take time, but I do not want you to imagine that plans for this are being left till the necessity actually arises. It is all being arranged and thought out now, and I have excellent authority for saying that the process in most cases is not going to be nearly so slow as many people fear—but of course it is not going to be accomplished over the week-end.

2. The removal from France to England of an immense quantity of material which has been borrowed from the industry of the country, and which will have to go back before the normal life of the country is resumed. There are many locomotives and hundreds of miles of railway track which will have to be taken back before the necessary transport services of the country are restored.

3. There is a great scarcity of raw material. We have made havoc of the world's stocks of all kinds of raw material, and these raw materials must be secured before industry can get into full swing. The Government is engaged on the problem of seeking out all available sources of supply and in securing control of them, but this is undoubtedly one of the most serious problems which has to be met.

4. The lack of transport. This will be acute at first but will improve as the months pass. It is transport for goods that will be the difficulty; there will be enough transport to take us home as fast as the country is ready to receive us.

The first men to be released from their units, and this release will take effect probably as soon as peace is in sight and before general demobilisation actually commences—will be:—

1. Those who are required in their military or civil capacity for the actual work of demobilisation.

2. Regular soldiers with more than two years' unexpired colour service to form the nucleus of a new regular army. Part of this new army will be required to take as soon as possible the places of the units serving in India and other places who must themselves be released. It has not been decided what the size of the new army will be, but it will certainly not be smaller than the army of 1914.

3. Those known as "pivotal" men—that is, the key men in the various trades and industries—the men without whom the rest of the workers cannot be employed.

These three classes being disposed of, there remains the question of the way in which priority will be applied to the rest.

There will be two categories of priority:—(*a*) of industries, (*b*) of individuals.

(*a*) No priority list of industries has been made yet, nor is it possible to make one at present. Even when such a list is drawn up it will not remain fixed but will change accordingly to the industrial situation. Trade that is at the head of the list one day may be sixth or seventh a few days later. As a matter of fact, the whole of industry hangs together, and all trades must go forward at the same time.

(*b*) Priority will be accorded to individuals for these three reasons:—(1) For long service. 10 per cent. of those who go from France will be chosen on account of long service and for no other reason. (2) For assured employment. (3) Priority will also be given to married men, other things being equal.

PROPOSED NEW BUILDINGS AND OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works, at the time of publication, have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; L.G.B. for Local Government Board; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

AYR.—The T.C. has undertaken to provide any houses necessary to meet the needs of the working-classes, and a committee has been appointed to look out for sites.

BATH.—An appeal is being made to add to the buildings of Kingswood School as a memorial to the old boys who have fallen in the war.

BIRMINGHAM.—The Housing Committee is recommending the T.C. to purchase 515 acres of land at Quinton for housing purposes.

BRADFORD.—The Education Committee is suggesting that a new grammar school should be erected as a war memorial.

BURY ST. EDMUNDS.—The T.C. has informed the L.G.B. that it is prepared to build one hundred houses. An architect is to be engaged to work in conjunction with the borough surveyor, and a Sites Selection Committee has been formed.

CASTLEFORD.—A sum of £2,600 has been subscribed towards the proposed cottage hospital and dispensary, but the site has not yet been decided on.

DUBLIN.—The Irish Tanning Co. has applied to the Corporation for a site at the North Wall for erecting works to carry out a system of tanning by electricity.

EASTBOURNE.—The R.D.C. has appointed sub-committees to deal with housing requirements. The number of cottages estimated to be required in each parish, including the houses to be provided for the employees of the Council, are as follows:—Pevensey, 15; Westham, 22; Willingdon, 2 in addition to any required by the parish; Eastdean, 8; Jevington, 5; Wilmington, 4; Alciston and Selmeston, 8; Berwick 6; Alfriston, 14; Litlington, 5; and Westdean, 2.

EAST LOTHIAN.—The Western District Committee of Haddington C.C. have approved the immediate erection of 16 houses at Longniddry; 16 at Pencaitland; 16 at Aberlady; 12 at Dirleton; 12 at Gifford; six at Athelstaneford; and eight houses on Lennoxlove estate, making a total of 86. The majority of the houses are to consist of not less than four apartments, and each is to have a scullery, and all modern conveniences, including bathroom.

ESCRICK.—The R.D.C. has expressed itself favourable to building forty houses.

EXETER.—The Corporation has informed the L.G.B. that it is prepared to erect 200 houses.

GLASGOW.—The Housing Committee reports that the town-clerk, the city engineer, and the medical officer of health, have met the L.G.B. and discussed questions of housing for the working-classes after the war. The Board has agreed to receive for approval site plans of areas proposed to be utilised in carrying out the Government's proposals for such housing, and have asked to be furnished with the report on Cowcaddens area by the consultant architects and others, as also with the report of the result of the approaches by the Corporation to the owners of the properties specially mentioned, so that those reports might

* See also our List of Competitions, Contracts, &c.

receive their consideration. The city engineer has submitted site plans of ground at (1) Kennyhill and Riddrie, (2) Blackhill, (3) Lochenhill, (4) Greenhead, (5) Bellahouston, (6) Moss Park, (7) Coplawhill, (8) Cathcart-road, (9) Gilshochill, and (10) Garngad, and these will be sent to the Board for approval.

GLOUCESTER.—Four hundred houses are to be erected by the T.C.

HOVE.—Plans passed by T.C.:—Conversion of two dwellings, 3, Brunswick-square, Mr. A. F. Carden for Col. Ward; new shop-front, 99, and 101, George-street, Mr. A. F. Carden for Messrs. F. Stringer, Ltd.; lavatories at factory, Aldrington Basin, Messrs. J. Barnes & Co., for Messrs. Allen West & Co.; motor-garage, Davigdor-road, Mr. W. H. Overton, for Mr. R. A. Cripps; additions, Raglan House, The Drive, Mr. C. J. Kerridge, for Mr. A. Grey; conversion of 46, Hove Park Villas into flats, Mr. Kerridge for Mr. J. J. Davies.

MANCHESTER.—Plans passed: Workshop, &c., to Works, Victoria-street, Openshaw; stores, Marshall-street, Tuley-street, and Kay-street, Openshaw; addition to premises, No. 29, Piccadilly, and Back Piccadilly; foreman's office to Works, Railway-street and Froxmer-street, Openshaw; howitzer carriage shop to Works, Gorton-lane, Gorton; conveniences to warehouse, Chepstow-street; packi gshed to Carbide Works, Bank-street, Clayton; boiler-making shed to works, Dover-street, Bradford; addition to laboratory of works, Waterloo-street, Crumpsall; plate shop to works, Monsall-road, Newton Heath; research laboratory to works, Crumpsall Vale, Crumpsall; office, &c., to laboratory of works, Delaunay's-road, Crumpsall; calorifier shed and addition to offices of works, Crumpsall, Vale, Crumpsall; store, No. 65, Jenkinson-street, Chorlton-upon-Medlock.—The Public Health Committee of the Manchester Corporation has informed the L.G.B. that the Corporation is prepared to provide the houses necessary for the working-classes subject to the generous discretion of the Board being exercised; to proceed immediately with the Tebbutt-street and Temple Estate schemes; and to prepare schemes for providing in the near future for the erection of about 2,000 houses on the Blackley Estate and of about 600 houses on the Gorton Mount Estate. The Committee are in negotiation for the purchase of an estate on the south side of the city which will provide accommodation for about 1,200 houses.

MILNGAVIE.—Several sites have been selected by the T.C. on which to erect workmen's houses and it has been decided that in no case shall there be more than 12 houses built to the acre.

NEWPORT (MON.).—The Housing Committee recommend that application be made to the L.G.B. to borrow £56,000, repayable in 80 years, for the purchase of building sites in connection with the Corporation housing scheme. The proposal includes the expenditure of £21,000 on the Somerton Estate, £1,600 on the St. Julian's Estate, £12,000 at Maindee Park Estate, and £5,000 on Maindee Hall Estate.

NEW ZEALAND.—A scheme for raising a loan of £165,000 for road improvements in Auckland is before the City Council. A committee of the Council proposed recently that this sum shall be utilised as follows: £125,000 for paving main streets £40,000 for secondary streets. These provisions include storm-water drainage and contingencies.

PERTH.—The T.C. has under consideration a scheme for building 200 workmen's houses.

PLYMOUTH.—Plan passed: Garage, Beaumont-road, for Mr. W. Mumford. A plan for alterations at 11 and 12, George-street for H. Samuel, Ltd., is before the Committee.

PONTYPOOL.—An offer by Mr. W. H. V. Bythway of land valued at £2,000 for £1,000 in order to facilitate the housing scheme, has been accepted with thanks by the U.D.C.

RHYL.—The Housing Committee has decided to erect not less than 50 houses instead of the 25 previously agreed to.

SALFORD.—Plans passed: Alterations and additions to: Foundry, King-street, Salford; Sailors' Institute, Trafford-road, Farm-street, Salford; pit of Victoria Electric Theatre, Great Clowes-street, Broughton; bakery, George-street, Barrow-street, Salford; schools, Great Cheetham-street, Brighton-street, and Tully-street, Broughton; dwelling house, 2, Trafalgar-street, and 140, Great Clowes-street, Broughton. Conversion of dwelling-house into two, Eccles Old-road, Pendleton.

SCARBOROUGH.—There are over 200 applicants for bungalows on the waiting list and the Chairman of the South Side Committee states that it is the intention to construct more bungalows and a café.

SHREWSBURY.—The T.C. has decided to purchase an estate of 19 acres near the borough from Lord Barnard for £5,500. It is proposed to erect about 200 houses on the site.

TRURO.—A scheme for the erection of 25 or more houses is before the T.C.

WEDNESBURY.—The Patent Shaft and Axletree Co. has presented 26 acres of land to the T.C. for housing purposes.

WEST BROMWICH.—Mr. W. H. Harvey, architect, has been appointed to design and carry out a housing scheme on the Tartary estate purchased by the Corporation.

WEYMOUTH.—The T.C. is informing the L.G.B. that it is prepared to provide 150 houses for the working classes.—Plan passed:—Building plots, Buxton-road, Messrs. Andrews, Son & Huxtable, for Mr. K. Openshaw.

FIRES.

AIRDRIE.—Fire broke out at Kippsbyre Colliery, Airdrie, belonging to Strain Bros., damage being done to the engine-house, smithy, joiners' shop, and plant to the extent of about £1,500.

DUNDEE.—Considerable damage has been done by fire to the Victoria-road Calender Works.

WINSFORD.—The Public Baths, erected as a Jubilee memorial by Sir Joseph Verdin and Mr. W. H. Verdin Darnhall Hall, have been destroyed by fire.

RATES OF WAGES IN THE BUILDING TRADE.

THE following are the present rates of wages in the Building Trade in the principal towns of England and Wales. It must be understood that, while every endeavour is made to ensure accuracy, we cannot be responsible for errors that *may* occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Masons' Labourers.	Bricklayers' Labourers.	Plasterers' Labourers.
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Aberdare	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Accrington	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/ ‡	1/1½	1/1½	1/1½
Altrincham	1/6½	1/6½	1/6½	1/6½	1/6½	1/7½	1/5½	1/2‡	1/2‡	1/2‡
Ashton-under-Lyne	1/6½	1/6½	1/6½	1/6½	1/6½	1/7½	1/5½	1/2‡	1/2‡	1/2‡
Barnsley	1/5½	1/2	1/1½	1/5½	1/1½	1/3½	11	11	11	11
Barrow-in-Furness	1/3½	1/4	1/4	1/3½	1/3½	1/3½	1/3½	1/1	1/1	1/1
Barry	1/3	1/3	1/3	1/3	1/-	1/3	1/2	1/-	1/-	1/-
Bath	1/1	1/1	1/1	10½	10½	1/1	1/-	10½	10½	10½
Bedford	1/1	1/1	1/1	1/1	1/1	1/1	10	10	10	10
Birkenhead	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½	1 2½	1/2½
Birmingham	1/5½	1/5½	1 5½	1/5½	1/4½	1/5½	1/4½	1/2½	1/2½	1/2½
Bishop Auckland	1/2½	1/2½	1/4	1/2½	1/2½	1/4½	11	11	11	11
Blackburn	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½	1/1½	1/1½
Blackpool	1/-	1/4	1/4	10½	8½	1/ ‡‡	10½	8	8	8
Bolton	1/6½	1/6½	1/5½	1/5½	1/5½	1/5½	1/5½	1/-§	1/-§	1/1§
Bournemouth	1/1	1/1	1/1	1/-	1/1	1/1	1/-	10½	10½	10½
Bradford	1/3½	1/3½	1/3	1/3½	1/2½	1/5	1/3	1/1	1/1	1/1
Bridgwater	1/-	1/-	1/-	1/-	1/-	1/-	11	9½	9½	9½
Brighton	1 1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/-	11	11	11
Bristol	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Burnley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½§	1/ 1§	1/1½§
Burton-on-Trent	1/2	1/2	1/2	1/2	1/2	1/2	1/1½	11½	11½	11½
Bury	1/5½	1/5½	1/4½	1/5½	1/3½§	1/7§	1/5§	1/-§	1/0½§	1/0½§
Cambridge	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/-	10½	10½	10½
Cardiff	1/3	1/3	1/3	1/3	1/3	1/3½	1/2	1/-	1/-	1/-
Chatham	10½‡‡	11‡‡	11‡‡	11‡‡	11‡‡	11‡‡	9½‡‡	8‡‡	8‡‡	8‡‡
Cheltenham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11	11	11	11
Chesterfield	1/3§	1/3§	1/3§	1/3§	1/- §	1/0½	1/0½	10½	10½	10½
Chester	1/3½	1/3½	1/3½	1/3§	1/3§	1/3§	1/2§	1/-§	1/-§	1/-§
Chesterfield	1/-	1/2	1/1	11	10	11	1/-	8-8½	8-8½	8-8½
Colchester	11	11½	11½	1/-	11	1/-	9½	8½	8½	8½
Coventry	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/2½	1/0½	1/0½	1/1
Crewe	1/1½	1/1½	1/3§	1/0½	1/1½	1/2	1/1½	8	8	8
Darlington	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1 2	1/0½	1/0½	1/0½
Derby	1/2	1/2	1/2	1/2	1/2	1/2	1/0½	11	11	11½
Doncaster	1/-	1/1	1/1	10½	10½	10	9½	10½	10½	10½
Dudley	1/2	1/2	1/2	1/2	1/2	1/3	1/1	11	11	11½
Durham	1/2	1/2	1/1½	1/2	1/1½	1/10	1/0½	9	9	9
East Glam. and Mon. Valleys	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Exeter	1/-	1/-	1/-	1/-	1/-	1/1½	11	10	10	10
Folkestone	1/-	1/-	1/-	1/-	1/-	1/-	10	9	9	9
Gloucester	1/0½	1/0½	1/0½	1/0½	1/0½	1/0½	11½	10½	10½	10½
Grantham	9½	10	9½	9½	10	8½	8	8	7½	8
Grays	—	1/-	1/-	—	—	1/-	10½	—	10	10
Grimsby	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/-§	1/-§	1/-§
Great Yarmouth	10	10	10	10	10	10	8½	7	7	7
Guildford	1/1	1/-	1/-	1/1	—	1/1	1/-	9½	9½	10
Halifax	1/2½	1/2½	1/3	1/2½	1/2½	1/2½	1/3	1/1½	11½	11½
Harrogate	1/-	1/0½	1/-	1/-	1/-	1/2	1/1	10	10	10
Hartlepools	1/3½	1/3½	1/3½	1/3½	1/2	1/3½	1 2	1/0½	1/0½	1/0½
Hastings	10	10	10	10	10	10	9	7½	7½	7½
Hereford	1/-	1/0½	1/-	1/0½	1/0½	1/0½	11½	10½	10½	10½
Huddersfield	1/3½	1/3½	1/5½	1/1	1/1	1/2	11	1/0½	1/0½	1/0½
Hull	1/5½§	1/5½	1/5½§	1/5½§	1/5½§	1/5½§	1/3	1/0½§	1/0½§	1/0½§
Ipswich	1/1½	1/1½	1/1½	1/2	1/2	1/2½	1/-	11	11	11
Lancaster	1/1½	1/3	1/2	1/1½	1/1½	1/2	1/1½	11	11	11
Leamington Spa	1/3	11½	1/1½	11½	11½	1/1½	1/0½	10½	10½	10½
Leeds	1/3½	1/3½	1/3	1/3	1/3½	1/5	1/3	1/0½	1/0½	1/1
Leicester	1/2	1/2	1,2	1/2	1,2	1/2	1/1	11½	11½	1/-
Lincoln	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	10½	10	10½
Liverpool	1/6½	1/6½	1/5½	1,6½	1/6½	1/6½	1 6½	1/2½§	1/3½§	1/2½§
Llanelly	1/3	1/3	1/1	1/3	1/3	1/3	1/2	1/-	1/-	1/-
London	1/5	1/5	1/5	1/5	—	1/5½	1/2½	1/1½	1/1½	1/1½
Loughborough	1/3½§	1/2	1/2	1/3½§	1/3½§	1/2	1/1	1/0½§	11½§	1/0½§
Luton	1/1	1/1	1/1	1/1	1/1	1/1	1/-	11	11	11
Maidstone	1/1	1/1	1/1	10	10	1/1	1/-	10	10	10
Manchester	1/6½	1/6½	1/6½	1/6½	1/5½	1/7§	1/5§	1/2½	1/2½§	1/2½§
Mansfield	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/0½	10½	10½	10½
Merthyr Tydfil	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Middlesbrough	1/3½	1/3½	1/3½	1/3½	1/2	1/3½	1 2	1/0½	1/0½	1/0½
Newcastle-on-Tyne	1/3½	1/3½	1/3½	1/3½	1/2	1/3	1/4§	1/0½	1/0½	1/0½
Newport, Mon.	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Northampton	1/1	1/1	1/1	1/1	1/1	1/1	1/-	10½	10½	10½
Norwich	1/-	1/-	1/-	1/-	1/-	1/-	11	9½	9½	9½
Nottingham	1/4	1/4	1/4	1/4	1/4	1/4½	1/1	1/1½	1/1½	1/1½
Oldham	1/5	1/5	1/6½	1/5§	1/4	1/7§	1/5§	1/1§	1/1§	1/2§
Oxford	1/0½	1/-	1/-	1/-	1/-	1/-	11	9½	9½	9½
Plymouth	1/2	1/2½	1/2	1/2	1/2	1/2	11¶	11	11	11
Pontypridd	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Portsmouth	1/-	1/-	1/-	1/-	1/-	11	10	9½	9½	9½
Preston	1/4½	1/4½	1/4	1/3½	1/3	1/4	1/3½	1/0½	1/0½	1/0½
Reading	1/1	1/1	1/1	1/1½	1/2	1/1	11½	11	10½	10½
Rochdale	1/6§	1/6§	1/6§	1/6§	1/4§	1/7§	1/5§	1/1½§	1/1½§	1/2§
Rochester	10½‡‡	11‡‡	11‡‡	11‡‡	11‡‡	11‡‡	9½‡‡	8‡‡	8‡‡	8‡‡
Rugby	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/0½	10½	10½	11½
St. Albans	1/-	1/-	1/2	1/-	1/-	1/-	10½	9	9	9
St. Helen's	1,6	1/6	1/6	1/6	1/6	1/5	1/3	11½	11½	11½
Scarborough	1/1	1/1	1/1	1/1	1/1	1/-	1/1	10	10	10
Sheffield	1 4	1/4	1/4	1/3½	1/3½	—	1/2½	1/0½	1/0½	1/0½
Shrewsbury	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	11	1/-
Southampton	1/1	1/1	1/1	1/1	1/1	1/1	1/-	10½	10½	10½
Southend-on-Sea	10	10	10	10	Piecework	10	9	8	8	8
Southport	1/4	1/4½	1/5	1/4	1/4	1/4	1/4	1/-	1/-	1/-
South Shields	1/3½	1/3½	1/3½	1/3½	1/3½	1/6§	1/2	1/0½	1/0½	1/0½
Stockport	1/5§	1/5§	1/6§	1/4§	1/4½§	1,7§	1/5§	1/1	1,1	1/1
Stockton-on-Tees	1/1½	1/3½	1/3½	1,3½	1/2	1/3½	1/2	1/0½	1/0½	1/0½
Stoke-on-Trent	1/2	1/2½	1/2	1/2	1/2	1/1½	1/1½	11½	11½	11½
Stroud	11½	11½	11½	11½	11½	11½	11	9½	9½	9½
Sunderland	1/3½	1/3½	1/3½	1/3½	1/2	1/1½	1/4§	1/0½	1/0½	1/0½
Swansea	1/3	1/3	1/3	1/3	1/3	1/3	1/2	1/-	1/-	1/-
Taunton	1/-	1/-	1/-	1/-	1/-	1/-	11	9½	9½	9½
Torquay	1/-	1/-	1/-	1/-	1/-	1/-	1/-	10	10	10
Wakefield	1/2½§	1/3§	1/2½§	1/2½§	1/2½§	1/3§	1/ §§	11½	11½	11½
Walsall	1/2	1/2	1/2	1/2	1/2	1/2	1/0½	11½	11½	11½
Warrington	1/6§	1/6§	1/6§	1/6§	1,6§	1/6§	1/5§	1/2½§	1/2½§	1/3§
West Bromwich	1/3½	1/3½	1/3½	1/4	1/3½	1/3	1/1½	1/0½	1/0½	1/0½
Wigan	1/5½§	1,5½§	1/5½§	1/5½§	1/5§	1/5½§	1/5§	1/2§	1/2§	1/2§
Windsor	1/-	1/-	1/-	1/-	1/-	1/-	10†	9	9	9
Wolverhampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½	1/1½	1/1½	1/1½
Worcester	1/-	1/-	1 -	1/-	1/-	1/-	10	10½	10½	10½
York	1/2§	1/2§	1/2§	1/2§	1/-	1/-	11	11½§	11½§	11½§

The Masons' rate given is for bankers: fixers usually 4d. per hour extra. * War bonus of 2s. per week granted † War bonus of 3s. per week granted. ‡ War bonus of 3s. 6d. per week granted. ‡‡ War bonus of 4s. per week granted. ¶ War bonus of 7s. 6d. per week granted. § These rates include the 12½ per cent. bonus. [The above rates, unless otherwise shown, are exclusive of 12½ per cent. bonus.—ED.]

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. Since our last issue several prices have been revised.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 3 6

Per 1000, Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons	2 7 6	Best Blue Pressed Staffordshire	7 18 6
Best Stourbridge Fire bricks	9 6 0	Do. Bullnose	8 3 6
GLAZED BRICKS—			
Best White, Ivory, and Salt Glazed Stretchers	17 17 6	D'ble Str'tch'rs	23 7 6
		D'ble Headers	20 7 6
		One Side and two Ends	24 7 6
Headers	17 7 6	Two Sides and one End	25 7 6
Quoins, Bullnose and 4½in. Flats	21 7 6	Splays and Squints	22 17 6

Second Quality, £1 per 1,000 less than best.

Glazed bricks priced at so much each, 50 per cent. advance on list.

Permission to be obtained from Director of Supplies for Flettons, Wire Cuts, &c.

	s. d.		
Thames Ballast	17 0	per yard,	delivered
Pit Sand	16 0		
Thames Sand	17 0	„ „	2 miles radius
Best Washed Sand	17 0	„ „	
¾ in. Shingle for Ferro-Concrete	15 0	„ „	Paddington.

Per ton, delivered.

	£ s. d.		£ s. d.
Best Portland Cement	3 8 0	..	3 11 0

Do. £2 16s. 0d. alongside in 80-ton lots.
Ferrocrete 2s. 6d. per ton extra on above.
Best Ground Blue Lias Lime 2 2 6 at rly. depot.

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks. The sacks are charged at 2s. 6d. each and credited at 2s. each if returned in good condition within three months.

Grey Stone Lime ..... 47s. 0d. per ton delivered.
Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	1 7
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	1 8½
Do. do. delivered on road waggons at Nine Elms Depot	1 9½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Mileage Station G.W.R., per ft. cube	2 10½
Do. do. delivered on road waggons at above stations, per ft. cube	2 11½
White basebed, 2d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average.*

RANDOM BLOCKS—Per Ft. Cube, delivered at Rly. Dpot.

	s. d.		s. d.
Ancaster in blocks	2 10	Closeburn Red Freestone	3 0
Beer in blocks	1 9		
Grinshill in blocks	2 6	Red & White Mansfield random block	4 8
Darley Dale in blocks	2 10	Yellow Magnesian Limestone do. do	3 9

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.	s. d.
Scappled random blocks ..... Per Ft. Cube	5 8
6 in. sawn two sides landings to sizes (under 30 ft. super.) ..... Per Ft. Super	4 6
6 in. rubbed two sides, ditto ..... „	4 11
3 in. sawn two sides slabs (random sizes) „	1 11
2 in. to 2½ in. sawn one side slabs (random sizes) ..... „	1 3
1½ in. to 2 in. ditto, ditto ..... „	1 1

HARD YORK—

Delivered at any Goods Station London.	
Scappled random blocks ..... Per Ft. Cube	4 9
6 in. sawn two sides landing to sizes (under 40ft. super.) ..... Per Ft. Super	4 0
6 in. rubbed two sides ditto ..... „	5 0
in. sawn two sides slabs (random sizes) „	1 11
2 in. self-faced random flags .. Per Yard Super	6 0

WOOD.

TIMBER CONTROL ORDER, 1918.

Pursuant to paragraph 3 of the Timber Control Order, 1918, the Controller of Timber Supplies hereby gives notice that until further notice the following shall be the maximum prices at which imported timber may be sold. These prices are per standard landed and in store.

WHITE SEA REDWOOD

	1st £	2nd £	3rd £	4th £		1st £	2nd £	3rd £	4th £
4 × 11	59	57	55	53	2 × 9	53	51	49	47
4 × 9	56	54	52	50	2 × 8	52	50	48	46
4 × 8	53	51	49	47	2 × 7	52	50	48	46
4 × 7	53	51	49	47	3 × 6				47
2½ & 3 × 11	58	56	54	51	2½ × 6				47
2½ & 3 × 9	53	51	49	47	3 × 5				46
3 × 8	52	50	48	46	2½ × 5				46
3 × 7	52	50	48	46	2 × 6				47
2½ & 7/8	52	50	48	46	2 × 5				45
2 × 11	58	56	54	51	2 × 4				45

UNSORTED LARCHWOOD at 3rd Archangel Redwood Prices.

Boards, 1st and 2nd, £2 10s. extra.
Boards, 3rd and 4th, £1 10s. extra.

WHITE SEA WHITEWOOD.

	1st. £	2nd. £	3rd. £		1st. £	2nd. £	3rd. £
3 × 11	57	55	50	3 × 8 u/s	48		
3 × 10	54	52	49	3 × 7 u/s	48		
3 × 9	52	50	48	2½ & 2 × 8 u/s	48		

	£ s. d.		£ s. d.
2½ & 2 × 7 u/s	48 0 0	2½ × 5 u/s	46 0 0
3 × 6½ u/s	47 10 0	3 × 5 u/s	46 0 0
2 × 6½ u/s	47 10 0	2 × 5 u/s	45 0 0
2½ & 3 × 6 u/s	47 0 0	2 × 4 u/s	45 0 0
2 × 6 u/s	47 0 0		

Boards, £1 10s. extra per std.

WOOD (*Continued*).

FEATHER EDGED BOARDS, £50 per std.

SAWN LATHS, 3s. 9d. per bundle.

U/S SLATING BATTENS (yellow and white and strips), £44.

5th ditto, £42.

SWEDISH AND NORWEGIAN FLOORING AND MATCHING.

U/S Red and White.

Per 100ft. super.	Per 100 ft. super
1½in. P.E. at 71/6	¾in. P.E. at 37/–
1¼in. P.E. at 60/–	½in. P.E at 31/–
1in. P.E. at 47/–	¼in. P.E. at 23/–
⅝in. P.E. at 41/–	

If tongued and grooved or tongued and grooved and matched, 9d. per square extra.

1in. × 11in P.E at £54 1in. × 9in. P.E. at £51
1in. × 10in. P.E. at £53 1in. × 8in. P.E. at £49

CANADIAN AND AMERICAN YELLOW PINE

	1st. £	2nd. £	3rd. £		1st. £	2nd. £	3rd. £
3 × 12 and up	80	69	67	3 × 8	62	55	53
3 × 11	78	63	61	3 × 7	60	53	51
3 × 10	66	58	56	3 × 4/6	58	51	49
3 × 9	64	56	54				

For complete specification and controlled prices, see issue of September 6, 1918, page 148.

Dry Wainscot Oak, per ft. super, as inch	0	3	0	..	—
¾ in. do. do.	0	2	3	..	—
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	3	0	..	0 4 0
Cuba, Mahogany	0	3	0	..	0 4 0
Teak (Rangoon, Moulmein or Java), per load	70	0	0	..	85 0 0
American Whitewood planks, per ft. cube	1	8	0	..	1 10 0
Scotch Glue, per lb.	0	2	8	..	—
Liquid Glue, pint	0	3	3	..	—

SLATES.

Per 1,000 of 1,200 f.o.r. London.

		£ s. d.
Best Blue Bangor Slates,	20 by 10	24 10 0
„ „ „	16 by 8	11 12 6
First quality „ „	20 by 10	24 0 0
„ „ „	16 by 8	11 2 6
Best Blue Portmadoc	20 by 10	23 15 0
„ „	16 by 8	11 2 0
First quality „	20 by 10	23 5 0
„ „	16 by 8	10 12 6

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	6 2 6
Ditto hand-made ditto	6 7 6
Ornamental ditto	6 10 0
Hip and valley tiles (per dozen)	0 14 0

METALS.

JOISTS, GIRDERS, ANGLES, C.I. COLUMNS, &c.
(*Prices controlled by Ministry of Munitions.*)

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £4 net value delivered direct from works. 5 per cent. less carriage forward if sent from London stocks.)

	Sizes up to and including 2 in. Tubes.	Fittings.	Sizes 2½ in. to 6 in. Tubes.	Fittings.
Gas	31½	35	36½	37½
Water	26½	32½	31½	35
Steam	21½	30	26½	32½
Galvanised Gas	8½	27½	12½	30
„ Water	—	25	3½	27½
„ Steam	6½ *on*	22½	2½ *on*	25

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles s. d.
2 in. per yd. in 6 fts.	4 2	3 1	3 8
2½ in. „	4 9	3 5	4 7
3 in. „	5 10	3 8	5 6
3½ in. „	6 6	4 7	6 6
4 in. „	7 1	5 2	7 3

RAIN-WATER PIPES, &c.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles s. d.
2 in. per yd. in 6fts. plain	2 9½	1 8½	2 4½
2½ in. „ „	3 1	1 11½	2 9½
3 in. „ „	3 8	2 6½	3 8
3½ in. „ „	4 5	3 0	4 3½
4 in. „ „	4 10	3 6	5 3

L.C.C. DRAIN PIPES,—9 ft. lengths. London Prices. 4 in., 7s. 7d. .. 5 in.. 9s. 2d. .. 6 in., 10s. 9d. Per ton in London.

	£ s. d.		£ s. d.
IRON—			
Common Bars	16 10 0	to	17 0 0
Staffordshire Crown Bars — good merchant quality	17 0 0	..	17 10 0
Staffordshire "Marked Bars"	18 0 0	..	19 0 0
Mild Steel Bars	21 0 0	..	21 10 0
Steel Bars, Ferro-Concrete quality, basis price	19 10 0	..	20 0 0
Hoop Iron, basis price	20 10 0	..	21 10 0
„ „ Galvanised	33 0 0	..	—
Sheet Iron Black—			
Ordinary sizes to 20 g.	23 0 0	..	23 10 0
„ „ 24 g.	24 0 0	..	24 10 0
„ „ 26 g.	25 0 0	..	26 0 0
Sheet Iron, Galvanised flat, ordinary quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	34 0 0	..	—
Ordinary sizes to 22 g. and 24 g.	34 0 0	..	34 10 0
Ordinary sizes to 26 g.	36 0 0	..	36 10 0

METALS (*Continued*).

Per ton in London.

	£ s. d.		£ s. d.
Sheet Iron, Galvanised, flat, best quality—			
Ordinary sizes to 20 g.	35 10 0	..	—
„ „ 22 g. and 24 g.	36 0 0	..	—
Ordinary sizes to 26 g.	39 0 0	..	—
Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 8 ft. 20 g.	33 0 0	..	Nominal prices only.
Ordinary sizes, 22 g. and 24 g.	33 10 0	..	
Ordinary sizes, 26 g.	32 10 0	..	
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	24 10 0	..	—
Best Soft Steel Sheets, 20 g. and 24 g.	24 15 0	..	—
Best Soft Steel Sheets, 26 g.	26 10 0	..	—
Cut Nails, 3 in. to 6 in.	29 0 0	..	30 0 0

(Under 3 in., usual trade extras.)

LEAD, &c.

Delivered in London.

	£ s. d.		£ s. d.
LEAD—Sheet, English, 4 lb. and up	51 0 0	..	—
Pipe in coils	51 10 0	..	—
Soil Pipe	54 10 0	..	—
Compo pipe	55 10 0	..	—

NOTE—Country delivery, 20s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

COPPER—		
Strong Sheet ... per lb.	0 2 3	Class A certificate required for all Copper, Tin and Solder purchases.
Thin „ ... „	0 2 4	
Copper nails ... „	0 2 3	
Copper wire ... „	0 2 4	
TIN—English Ingots „	0 2 9	
SOLDER—Plumbers' „	0 1 10	
Tinmen's „	0 2 4	
Blowpipe „	0 2 8	

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.
15 oz. fourths ... 7d.	32 oz. fourths ...	10d.
„ thirds ... 7½d.	„ thirds ...	11d.
21 „ fourths ... 8d.	Fluted, Obscured and	
„ thirds ... 8½d.	Enamelled Sheet,	
26 „ fourths ... 9d.	15 oz.	7½d.
„ thirds ... 9½d.	21 „	8½d.

Extra price according to size and substance for squares cut from stock, and only small quantities can be supplied without an A Certificate.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	5½d.
⅜ Rough rolled and rough cast plate	6d.
½ Rough rolled and rough cast plate	6½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	7½d.
Rolled Sheet	6d.
White Rolled Cathedral	6d.
Tinted do.	6½d.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil	in pipes ... per gallon	0 8 0
„ „ „	in barrels ... „	0 8 4
„ „ „	in drums ... „	0 8 7
Boiled „	„ in barrels ... „	0 8 7
„ „	„ in drums ... „	0 9 0

Orders for these oils must be accompanied by a certificate from the Ministry of Food (Oil and Fat Department), St. Stephen's House, Westminster, S.W.1

Turpentine in barrels	„	0 10 9
„ in drums	„	0 11 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		72 10 0
GENUINE WHITE LEAD PAINT— "Blackfriars," "Nine Elms," "Park," and other best brands (in 14 lb. tins) not less than 5 cwt. lots	per ton delivered	102 10 0
Red Lead, Dry (packages extra)	per ton	58 0 0
Best Linseed Oil Putty	per cwt.	1 6 0
Filocol	per cwt.	1 0 6
Size. X D Quality	fkn.	0 5 6

VARNISHES, &c.

Per gallon.

	£ s. d.
Fine Pale Oak	0 16 0
Pale Copal Oak	0 17 0
Superfine Pale Elastic Oak	0 19 6
Fine Extra Hard Church Oak	0 18 0
Superfine Hard-drying Oak, for seats of Churches	1 1 0
Superfine Pale Elastic Carriage	1 1 0
Fine Pale Maple	0 14 0
Finest Pale Durable Copal	1 5 0
Extra Pale French Oil	1 4 0
Eggshell Flatting	1 0 0
White Pale Enamel	1 6 0
Extra Pale Paper	0 16 0
Best Japan Gold Size	0 12 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 12 0
Brunswick Black	0 10 0
Berlin Black	0 16 0
Knotting	1 10 0
French and Brush Polish	1 0 0

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

Competitions, Contracts, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk (*) are advertised in this number. Contracts vi: Competitions iv; Public Appointments xxvi; Sales by Auction —. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender or the names of those willing to submit tenders, may be sent in.

BUILDING AND PAINTING.

NO DATE. — **Bethnal Green.** — PAINTING.— The Bethnal Green Board of Guardians invite tenders for the painting of the exterior of Bethnal Green Military Hospital, Cambridge heath, E. 2. Quantities of Messrs. Holman & Goodrham, 6, King's Bench-walk, E.C. Deposit, £10.

FURNITURE, MATERIALS, etc.

DECEMBER 28.—**Bexley.**—MATERIALS.—The Bexley Urban District Council invite tenders for the supply of tar, highway materials, best glazed stoneware socketed pipes and best Portland cement for the year ending March 31, 1920. Specifications of Mr. W. T. Howse. Surveyor, Council Offices, Bexleyheath, Kent.

JANUARY 6.—**Hendon.**—MATERIALS.—The Hendon U.D.C. invite tenders for the supply of materials for one year from April 1, 1919. Specifications, forms of tender and other particulars can be obtained from Mr. S. Slater Grimley, M.Inst.C.E., Engineer and Surveyor to the Council Town Hall, Hendon, N.W. 4

JANUARY 6.—**St. Pancras.**—MATERIALS.—The Highways Committee of St. Pancras Borough Council invite tenders for materials for highways and sewers. Particulars of Mr. Wm. Nisbet Blair, Borough Engineer, Town Hall, Pancras-road, N.W.

NO DATE.—**Norwich.**—SEWER MACHINERY.—The Norwich Corporation invite particulars and prices for sewer trench machinery and tamping machines. Mr. Arthur E. Collins, City Engineer, Guildhall, Norwich.

BUILDINGS STEAM CLEANED.

Improved Process. No Injury to the Fabric.

THE STEAM CLEANING CORPORATION,

9a, LITTLE JAMES ST., GRAY'S INN, LONDON, W.C. 1

Proprietors: The Stone Preservation Co., Ltd.

LEWIS & LEWIS, Ltd.,

Electrical and Mechanical Engineers,

TOWNMEAD ROAD, FULHAM, S.W.

FOR SALE OR HIRE:

Contractors' Plant of all Kinds.

'Phone: Putney 521. REPAIRS and CASTINGS.

FOR **SILVERED GLASS** Apply to **James Clark & Son,** LIMITED, Railway Arches, BlackfriarsRd., London S.E.

With or without Black, White, or Mahogany Beads

Our Silvering Process is the product of the latest scientific and mechanical inventions. White, brilliant, and extremely durable.

ENGINEERING, IRON AND STEEL.

NO DATE.—**Manchester.**—LIFT.—Tenders are invited for the erection of an electric passenger lift in City warehouse. Particulars of Messrs. R. Cheetham & Co., 25, George-street, Manchester.

ROAD, SANITARY, AND WATER WORKS.

DECEMBER 27.—**Wells.**—ROADS.—The Somerset County Council Main Roads Sub-Committee invite tenders for surface tarring on main roads in various parts of the county during the coming summer. Specification from Mr. Gordon R. Folland, acting county surveyor, County Surveyor's Office, Wells.

JANUARY 2. — **Abergavenny.** — DRAINAGE. — The Guardians invite tenders for the carrying out of certain alterations to, and repairs of, the drains on the workhouse premises. Specifications at the Union Offices, Monk-street, Abergavenny.

*NO DATE.—**Woolwich.**—REMOVAL OF CLINKER.—The Electricity Committee of the Metropolitan Borough of Woolwich are desirous of receiving offers for the removal of clinker from their generating station, Bell Water Gate. Enquiries to the Borough Electrical Engineer, 44, Powis-street, Woolwich, S.E. 18.

Competitions.

*JANUARY 1.—**Blaenavon.**—PLANS.—The Blaenavon U.D.C. invite architects to submit competitive plans for the laying out of a plot of land, upon which it is intended to construct 140 houses. Prizes £100 and £50.

*JANUARY 1.—**Birmingham.**—DESIGNS.—The Housing and Town Planning Committee invite surveyors, architects and others to submit designs for laying out an estate of 54 acres. Premiums £150, £100 and £50, respectively. Particulars may be obtained on or after January 1, on application to the Town Clerk, Council House, Birmingham.

Public Appointments.

*DECEMBER 30.—**London.**—The East Ham Corporation invite applications for the appointment in the Engineer's Department of an architectural assistant. Applications to be addressed to Mr. J. Birch, Borough Engineer, Town Hall, East Ham, E. 6.

*NO DATE.—**Birmingham.**—The Housing and Town Planning Department invite applications for the position of temporary surveying and architectural draughtsman. Salary £3 10s. per week. Applications to Henry E. Stilgoe, M.Inst.C.E., City Engineer and Surveyor, The Council House, Birmingham.

*NO DATE.—**London.**—The Polytechnic, 309, Regent-street, W. 1, require the services of assistant master for the Day School of Architecture. Applications, stating age, &c., to be addressed to the Director of Education.

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TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 12 *noon on Wednesday.*

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance.*

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120,641.—T. Potter: Glazing bars for glass roofs and other purposes.

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120,667.—E. Hanff: Means or device for repairing burst or fractured pipes.

120,670.—J. G. Evans and A. Lowe: Construction of beams or girders.

120,691.—R. Illemann and J. A. Montgomerie: Non-conducting material.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

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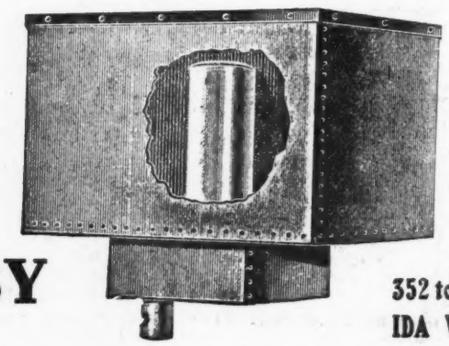

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